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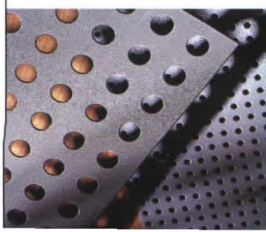
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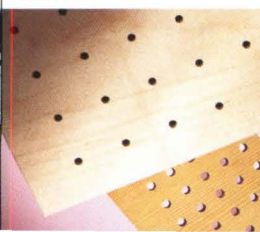
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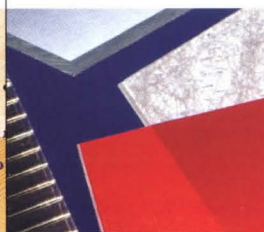
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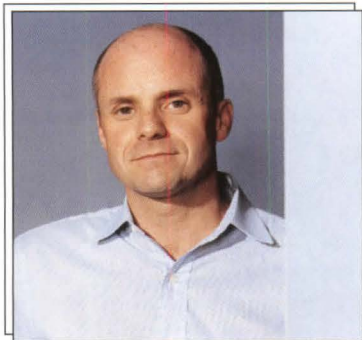


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## IBERIAN INSIGHT

BY C.C. SULLIVAN

**Here's a novel recipe** for architectural innovation: Take a few decades of brutal political repression, mix with a transcontinental artistic tradition, and add a dash of hard-core soccer rivalry.

I'm not joking, really, just trying to explain why the Iberian Peninsula has brought the world some of the best designers and buildings in recent times. The symmetry of Portugal and Spain's recent histories is striking: From storied pasts marked by conquering explorers, zealous clerics, and dynastic monarchies (all known for their artistic patronage) emerged culturally repressive modern dictators. The Portuguese suffered Antonio Salazar for five decades of isolationist totalitarianism; in Spain, it was Francisco Franco who closed the doors to Europe and the world.

Portugal reclaimed its democracy first, in 1974, followed by a burst of social change and artistic activity. And when Franco died in 1975, Spaniards enjoyed *la movida*, a time of cultural flowering and political liberalization. I lived in Madrid in the late 1980s, during the run-up to Seville's Expo '92 and the Barcelona Olympics, and witnessed firsthand the intoxicating effects of this era on architects and artists, and on the (many) people on the street.

Each country, almost at once after it was liberated, reclaimed its energy and legacy. As is often the case, architecture lagged slightly behind the art and business worlds, but it would prove to carry the most momentum. Today, Spain is a hotbed of architectural experimentation and patronage. In the just-published *Phaidon Atlas of Contemporary World Architecture* (June 2004, page 103), an astounding 66 projects for Spain are portrayed; Portugal has a still-impressive 10. (Scale: Finland = 16.)

But numbers don't explain this phenomenon. Consider Spain's living maestros, Rafael Moneo and Santiago Calatrava (and one might add the younger Josep Lluís Mateo), as well as the flourishing partnerships of Antonio Cruz and Antonio Ortiz, (October 1999, page 116), and that of Federico

Soriano and Dolores Palacios. Other new talents include Juan Navarro Baldeweg (February 2002, page 66) and Ábalos & Herreros (April 2003, page 60). The list goes on—too long to complete here.

Surprisingly, much of the inspiration for Spain's accomplishments has come from due west: the ever-nostalgic and introspective population of Portugal. While the Spanish partied post-Franco, the Portuguese became the conscience and collective memory of Iberia. The long-term influence of Lisbon's Expo '98 on the global architectural scene is only just now coming into focus. The iconic Portuguese Pavilion by Álvaro Siza capped almost 50 years of practice by this senior statesman of the Oporto school (see page 19), and it raised expectations for new works throughout the peninsula. Siza has long brought international attention to the latent talents found in his country, in part by capturing the European Architecture prize in 1988 and the Pritzker Prize in 1992.

Following in Siza's wake are other Portuguese names that Americans should get to know. Noteworthy for their daring and sublime works are Adalberto Dias, J. Álvaro Rocha and José Gigante, Nuno and José Mateus, and João Luis Carrilho da Graça, who created the "Pavilion of the Seas" for Expo '98. On our cover this month is a new soccer stadium by Eduardo Souto de Moura (page 48) built into a hill in Braga, a town known for its rich history of religious architecture. While this arena may be just as famous for its outlandish budget (as much as 180 percent over initial estimates) as for its role in this year's European Cup championship, it has become another design benchmark for peers elsewhere.

While I lived in Madrid, the architect I worked for would often tell his associates, "*No hay mejor maestro que Siza*"—in other words, when confronted with a challenge or when in need of inspiration, one could often learn best from Siza's work. Today's mantra for designers around the world might be similar: *No hay mejor maestro que Iberia*. ■

**Who is your "maestro"?** Send letters about your mentors and alter egos to [csullivan@architecturemag.com](mailto:csullivan@architecturemag.com) or to *ARCHITECTURE*, 770 Broadway, New York, New York, 10003.

### Good work is good business

Just a short message to tell you how much we all appreciate, and find useful, the content of the May issue and its entire approach. You have a variety of articles, from one describing what firms do when they meet with each other and discuss business [May 2004, page 26], to aspects of construction, not just pretty pictures. Please keep up the good work!

**Charles R. Carroll, Jr.**

*Baltimore*

Regarding your management roundtable and sharing best practices: The San Francisco AIA used to have a once-a-month "Small Offices Seminar," an after-work open house in an office with a staff of less than ten people. It started with wine and cheese (this is California!) and casual conversation, and work was often displayed. The principals would share how they started in the profession, the type of work they did, how they structured their office, etc. What amazed and delighted me most, however, was the question-and-answer period. Everyone was totally open—about finances, contracts, liability, and insurance—the full gamut of the practice. I learned a lot and yearn for that kind of camaraderie again.

**Lawrence Kasparowitz**

*Santa Cruz, California*

### Memorial speaks to them

It is astonishing that, after a century, modernists maintain a religious fanatic's two-dimensional view of the world, devoid of an appreciation of the richness of human experience and history. The idea that the new World War II memorial is fascist is laughable [May 2004, page 95]. Classicism is a 2,000-year-old architectural language that has signified rightful authority since its inception. That several governments briefly tried to mask their nefarious nature behind the façade of classicism merely proves its power as a symbol of all that is best in human affairs. One need only look at other buildings near the Mall to see what democracy looks like. In this age where memory means nothing and the new is celebrated at any price, Friedrich St. Florian's work need not be a masterwork in and of itself to affirm the validity of a living tradition.

**Michael R. Ytterberg**

*Philadelphia*

Michael Z. Wise doesn't like Art Deco monuments, or at least Art Deco-inspired monuments built after, say, 1945. Not content to accuse St. Florian's monument of being historicist—damning enough, nowadays—he reveals it as a paean to Albert Speer or Mussolini's Rome. We are left to believe that it was an unconscious nod to fascism by a well-intentioned, if not very bright, architect—bathos and bombast indeed, surely in need of public excoriation. Yet a Google search of "Deco" and "Post Office" yields images of the Reno, Nevada, Post Office—surely another example of American fascist architecture—and the Ariel Rios Federal Building (also

known as the New Post Office) in Washington's Federal Triangle Historic District, a few blocks from St. Florian's monument. I'm no fan of that neighborhood's architecture, but surely context should have some bearing upon any monument put up there, current aesthetic orthodoxy notwithstanding. The simple fact is that Speer was designing in the style of his day—he wasn't clever enough to invent a style that would somehow embody Hitler's aspirations (or, for that matter, those of the U.S. Postal Service).

**Paul Appleby**

*Forest Hills, New York*

I am appalled and above all disappointed at the reporting of your contributing editor concerning the just-completed World War II Memorial. It seems that your magazine should have extended the courtesy to meet with me at the site, considering the magnitude and importance of the memorial.

Criticism is welcome, but what has been written in the pages of your magazine is not criticism but reckless polemic. There is no mention of the fact that the memorial fits seamlessly into its surroundings, that its scale is just right, and that it conveys an aura of dignity that is befitting to the remembrance of a very special generation of Americans.

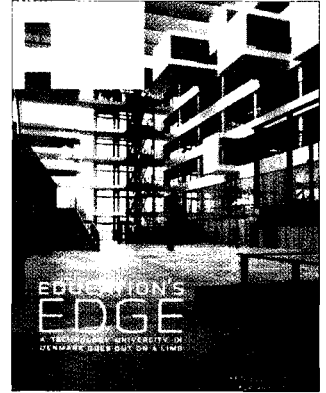
The nearly exclusive focus on the architectural language is unfortunate. While the use of the classical language is anathema to some critics, there is a compelling reason for its use in this particular instance.

**Friedrich St. Florian**

*Providence, Rhode Island*

### Competing opinions

Our recent experiences have clearly demonstrated the problematic aspects of design competitions, the subject of your editorial [May 2004, page 15]. Some types of commissions are appropriate for this process and others clearly are not. In most competitions, however, there's no control on time or fair compensation involved. Does any other profession give away the core of their work (our best ideas) in an effort to procure work? To explore this subject, you need a fuller discussion of all of these issues, as suggested in the Practice piece on competitions [May 2004, page 37]. Without appropriate guidance and controls, competitions are a very bad trend in an already stressed profession that lead to selection based upon unachievable designs rooted in superficial and



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*Continued on page 73*

## MOSCOW DESTROYING LANDMARKS



The City of Moscow's decision not to restore the Manezh, a former cavalry facility damaged in a suspicious fire last spring, may be the last straw for preservationists trying to stop the city's mayor, Yuri Luzhkov, from continuing the demolition of historic monuments. "I have lived here for eight years, and Moscow as I know it is disappearing," says Kevin O'Flynn, a British journalist. He recently cofounded the nonprofit Moscow Architecture Preservation Society (MAPS), which he hopes will increase global awareness of the city's alleged strategy.

According to MAPS, the lure of development profit has the city tearing down more historical buildings than at any time since Josef Stalin razed much of Moscow in the 1930s. Recent victims include the modernist Voentorg military store and the Stalinist-era Hotel Moskva. Others are still at risk.

Meanwhile, Luzhkov announced last month The New Moscow Ring, sixty 47- to 60-story residential skyscrapers to encircle the radial city. According to the news agency Novosti, the U.S. Department of Housing and Urban Development, Skidmore, Owings & Merrill's Chicago office, and New York-based architecture firm Frank Williams & Associates have been consulting on the project. **Anna Arutiunova**

⇒ A panel of government experts has reported that mold appears to pose no serious risk to most people, contrary to countless reports of debilitating health problems suffered by occupants of mold-infected buildings. The Institute of Medicine panel reviewed hundreds of scientific papers and reports, but the participants noted that more research was needed. In 2002, mold-related illness cases cost American insurance companies roughly \$2.5 billion.

⇒ Katherine Lee Schwennsen has been elected to be the AIA's first-vice-president/president-elect for 2005 and president for 2006. A professor at the University of Iowa with 10 years' experience in practice, Schwennsen has been active with the AIA and other architectural bodies at the national level for more than 11 years. She will be the AIA's 82nd president, but only the second woman to hold the position.

## PARIS AIRPORT COLLAPSE SPREADS BEYOND FRANCE



A section of the Charles de Gaulle Airport near Paris, France, collapsed on May 23, killing four passengers and causing millions of dollars in damage. Part of a year-old addition, the 120-foot-long segment of terminal sheared cleanly along sectional seams, apparently due to a structural failure.

The \$900 million terminal used technology common to tunnel design: concrete shells held in tension by steel hoops and carbon-fiber reinforcements simulating the forces experienced by a submerged tunnel. The innovative technique was French architect Paul Andreu's response to the Aéroports de Paris (ADP)'s request for a column-free interior.

French authorities have launched two investigations into the collapse, one criminal and one administrative. Andreu quickly returned to Paris from China, where he was on the site of one of his projects. "I can't explain what happened," he told *L'Humanité* newspaper, "I just don't understand it."

The ADP soon rerouted flights to other terminals so that the remainder of Terminal 2E could be studied; ADP president Pierre Graff pledged to tear it down if it's deemed unsafe.

Coincidentally, the project Andreu was supervising in China at the time of the Paris collapse, the Beijing National Theatre, has the same developer (ADP) as Terminal 2E and boasts an unusual—and, in this case, largely unpopular—design of its own (an immense bubble-shaped structure with no interior columns or supports). And it's also associated with controversy: Last July, French authorities began investigating whether Andreu was being improperly paid for his theater work—once as an ADP employee, and again as its hired architect. Andreu has since resigned from the ADP. But according to *Le Monde* newspaper, a letter reiterating the charges was delivered to French authorities after the de Gaulle incident.

More broadly, the Terminal 2E tragedy and the poor response to Andreu's Beijing design have experts speculating about how much architects will be able to experiment with new materials and structural systems in France; many new buildings elsewhere in Europe have been noteworthy for their innovative structural approaches. **Julia Mandell and Jamie Reynolds**

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## STONE, NEUTRA WORKS THREATENED

### What do Bethlehem Steel

and the State of Vermont have in common? Both are at risk, according to the National Trust for Historic Preservation (NTHP), a group known foremost for its stewardship of the country's architectural and geographic heritage. But its role as watchdog is equally significant. Since 1988, the



trust's annual list of "11 Most Endangered Historic Places" has drawn media attention—and new resources—to buildings and sites at risk.

This year's list, announced in May, includes 2 Columbus Circle, Edward Durrell Stone's 1964 New York City museum that the NTHP believes "will lose its distinctive features" if a redesign by its new owner, the Museum of Art and Design, is executed. Also on the list is the George Kraigher House (above) in Brownsville, Texas, designed by Richard Neutra, now long-vacant and deteriorating due to neglect and vandalism. Other entries include the Bethlehem Steel Plant in Bethlehem, Pennsylvania, which may be replaced by mixed-use redevelopments, and the entire state of Vermont (a second-timer on the list), where the trust fears that Wal-Mart's proposed seven new super-stores "are likely to spur additional development, sprawl, disinvestments in downtowns," and erode the state's bucolic character.

In a written statement, NTHP president Richard Moe argues that the 2004 listed places "constitute an epic cultural narrative whose chapters include not only world-famous icons but hidden treasures. Unless all of us become aware of the importance of our heritage and take action to preserve it, America's past won't have a future." **Abby Bussell**

## EPA'S PLYWOOD STANDARDS MUDDY THE AIR

**New Environmental Protection Agency** (EPA) standards for lowering air-pollutant emissions in the plywood industry are drawing strong criticism from health and environmental experts. Even though the final rules won't be published until later this summer, critics fear the revised regulations will benefit the industry far more than the public.

Under the new standards, some 73 of the 220 plywood plants now operating would be labeled "high risk" by the EPA because the plants each release 25 tons or more of pollutants into the atmosphere during the manufacturing process, specifically during the gluing together of veneer sheets and wood cores. High-risk facilities would be forced to lower emissions by installing filters, using more environmentally friendly materials, or by offsetting a high-emission plant with a low-emission one nearby.

But some critics see a bias: The EPA's top air-pollution regulator, Jeffrey R. Holmstead, previously worked for a law firm that represents many of the country's plywood makers. And watchdog groups such as the Environmental Integrity Project say the rules don't adequately address formaldehyde, a common plywood byproduct and suspected carcinogen.

According to a spokesperson for the U.S. Green Building Council, the effects of the new plywood rule may be considered in developing the next generation of LEED standards. In response to the outcry against the new standards, John Millet, an EPA spokesperson, says, "these types of regulations are really just a first step." **Katie Gerfen**

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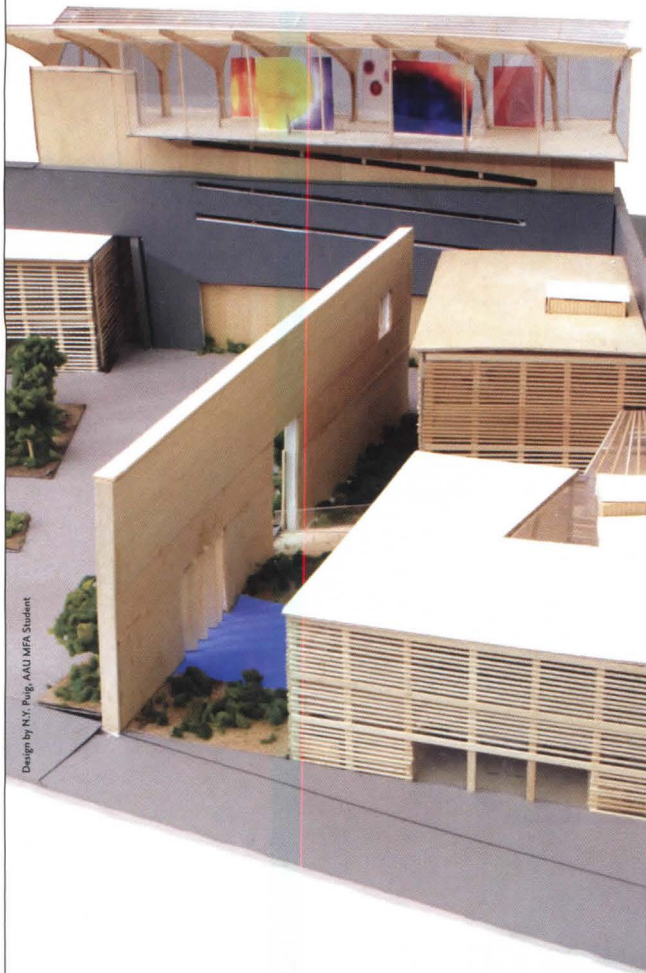
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## SHOCK WAVES AS MATERIAL COSTS SPIKE

The 50-percent spike in steel costs early this year caught architects and their clients off guard. But it wasn't just scrap metal that suddenly became expensive and hard to find: Cement, plastics, and wood products also became unusually scarce this spring, the result of consolidating suppliers and heavy overseas demand.

Just the normal swings of a global marketplace? "No," says Karl Almstead, head of estimating at Turner Construction, which is based in New York City. "Material prices go up and down, but this is a pretty strange scenario."

"The surprise was how much the heavy demand accelerated this year," says Nancy Gravatt, spokesperson for the American Iron & Steel Institute in Washington, D.C., crediting the voracious Chinese market and the closing of steel mills for rising prices. "But I haven't heard many stories about shortages."

"The supply issue is a nonstory" for steel, says Bob Johns, a marketing director with steel maker Nucor of Charlotte, North Carolina. "Lead times are very average now; demand is O.K., kind of steady, but certainly not peak."

The same can't be said for the cement industry, however: Concrete shortages are present in "about half of the country right now, and it's going to get worse," says Edward J. Sullivan, chief economist with the Skokie, Illinois-based Portland Cement Association. "Even regions not experiencing shortages expect to in the next six months." Price swings have been worse for steel than for concrete, in part because cement suppliers put ready-mix customers "on allocation," choking their deliveries according to previous demand. This stretches lead times and, in many cases, delays building projects.

Except for cement, some relief is on the short-term horizon. Interest rates are expected to rise—and quickly—this year, damping homebuilding, and recent Chinese economic policies are already braking construction there. Lastly, steel scrap costs and freight rates, both of which jumped this year, seem to be coming back to earth. **C.C. Sullivan**

⇒ Several architects and designers were among the recent winners of the 2005 Rome Prize: architects John Hartmann of New York City's Freecell, and Michael A. Hermann of Atelier Jean Nouvel, Paris; landscape architects Sarah Kuehl of Peter Walker and Partners, and Jon Piasecki of Golden Brush Landscape Architecture, Housatonic, Massachusetts. For design, prizes went to Peter Lynch of the Cranbrook Academy of Art and Pratt Institute's Allan Wexler. The prize includes a residential fellowship sponsored by the American Academy in Rome.





## THE SEA, THE ALHAMBRA, AND PORT WINE

Álvaro Siza, Portugal's master builder, reflects on five decades of practice. by C.C. Sullivan

*It's been exactly 50 years since Álvaro Joaquim Melo Siza Vieira founded his practice in Oporto, Portugal—an auspicious moment to consider anew his prolific career. More recently, Siza visited New York City to serve on the jury for the National Design Awards, to open an exhibition of his household objects, and to talk to Architecture about his design process, his new home-furnishings line, and the influence of the sun and the Atlantic Ocean on his buildings. Sketching and chain-smoking, the indefatigable, Pritzker Prize-winning maestro offered both queries and counsel.*

**C.C. SULLIVAN:** Kenneth Frampton says you've filled more sketchbooks so far than Le Corbusier did during his entire career. Why are you so compelled to record?

**ÁLVARO SIZA:** Sketching is decompression. Architecture is so exigent, with so many meetings and situations, if you don't treat your mind sometimes—

and your hand—things can become very hard.

**SULLIVAN:** When did you find the right balance between work and life?

**SIZA:** From the beginning. My intention was to become a sculptor, but my family didn't like that idea. My father was an engineer, and I had no interest in being one. So I went to a school where they offered painting, sculpture, and archi-

**☑ Usually I make sketches, and then we make models. Making models is very, very important for me.**

tecture together, with a plan to switch from architecture to sculpture. But I didn't—I discovered architecture. And it was at a very stimulating moment, just following the war: It had been a beaux-arts school, but things were changing and a younger generation of teachers was taking power.

**SULLIVAN:** Has your interest in sculpture affected your architectural approach?

**SIZA:** There are sculptural values in all of architecture, but in my case I don't see a big relation between the two. Although three years ago or so I made a series of sculptures for an exhibition in Madrid.

**SULLIVAN:** How are they different?

**SIZA:** Mainly how we measure people moving through a building. You must work with an idea that follows from the form of the movement, and the experience of the space. When I can mentally move through a building I'm designing, that knowledge makes it possible for me to go home and find the solution to each detail in my mind.

**SULLIVAN:** Your recent work includes a number of new household items and furnishings.

**SIZA:** For the first small public building I did, the Boa Nova Tea House in Oporto [1963], I designed all of the furniture, and I have always felt the need to think about the movements of people—and we need furniture. To make a

chair, for instance, I would make a prototype, which might be some boxes in the office, and check the measurements. I know there are books with all these rules, but the rules never tell you everything if you want to create special forms, special expressions of furniture. The other thing is that I feel the need to work at different scales; to make a big building you must have experience first with a small building, and also the furniture and objects you put in it.

**SULLIVAN:** Which object has offered you a memorable challenge recently?

**SIZA:** To design a port wine glass for [New York City-based] Ohm [Design], I met with wine tasters and producers to



discuss the dimensions of the glass and the problems in their market, and especially to look at how they held the glass. The existing glass was shorter, but they wanted something that would survive like other wine glasses, which seem to get bigger and bigger every day. And it had to be a little closer at the top, so the perfume would concentrate there and also so the port wine would not spill when they swirl it. The people who really understand port wine hold the glass in a certain way, so I made a small depression here and another there. Then we spoke with the fabricator to study the technical aspects and make a prototype to see how it worked. And so on and so on—it's a long process.

**SULLIVAN:** It seems like model-making and prototyping are another way for you to sketch.

**SIZA:** Making models is very, very important for me; the office is full of

working models. Usually I make sketches until I think something can go, and then we make a schematic model in the office. For the objects, sometimes they're done outside of the office by computers that make them in plastic. But during this process, of course, I talk to the producer, who makes the prototype.

**SULLIVAN:** That close relationship with craftspeople and fabricators has greatly affected your work. Another, perhaps more intimate influence has been the coast, and the ocean.

**SIZA:** The sea gave me a lot of pleasure when I was a child; I lived five minutes from the beach. And it became a picture of natural perfection for me, because while the coast has been destroyed by tourism and industry in Portugal and the south of Spain, nobody is able to destroy the sea. The Atlantic is like a rock, and there is this sensation of space. And you cannot separate it from Portuguese culture and life. It goes with our need to have more space and more contact with other places, something that probably increased with the isolation our country suffered for 50 years [under dictator Antonio Salazar].

I made two of my first works by the sea: the tea house, and three years later, the swimming pool [at Leça da Palmeira, 1963], and that was a fantastic experience because the materials I had—in fact, the rocks and the sea, which has a very strong life—conditioned everything. If something was out of place, the



sea would take it. You must be respectful, as when you go walking on the rocks, you must know where to put your feet.

**SULLIVAN:** Your buildings also respond to Portugal's sun.

**SIZA:** Yes, light. When I was a child, we used to go to the south of Spain, and in Granada, for instance, the Alhambra, its most fantastic image is how you go from plain light to protected zones and then to more interior, or even dark, areas. I could never build a glass house, because for me personally, it's not a convenient or comfortable solution.

**SULLIVAN:** After 50 years of recording and creating works, you're among the most important architects of our time. But are you a star?

**SIZA:** No. I'm too lazy to be a star. You have to socialize and create an image—it's just extra work. ■



Siza has built more than 250 architectural projects, many with custom furnishings. Well-known furniture designs include the Cantadora Secretary desk (above), the Aveiro chair (above left), and the Alem chair (top right).

# CAN A BUILDING BE JEWISH?

A recent spate of activity brings to the fore questions of Jewish identity in architecture. by David Serlin

Over the past decade, questions about what constitutes Jewish architecture have become urgent in much the same way that, during the 1980s, questions about gender and race irrevocably changed discussions of the built environment. Ten years ago, Pei Cobb Freed & Partners' design for the United States Holocaust Memorial Museum in Washington, D.C., arguably the most important nonreligious building predominantly focused on Jewish history ever built in the United States, prompted such questions: Can Jewish identity be captured and conveyed through architecture? If so, what would a "Jewish building" actually look like?

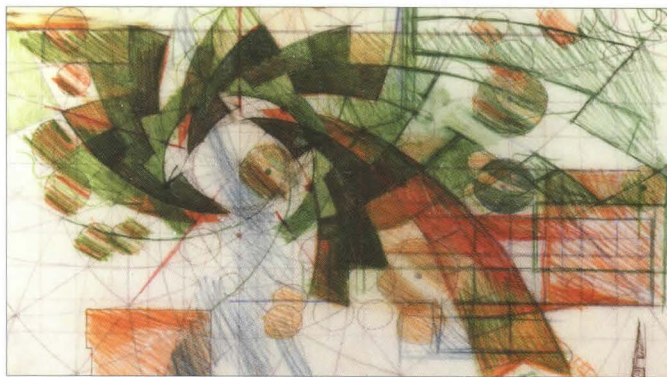
Even a generation ago, it would have been difficult to raise such questions in the United States. Although Jews figure prominently in the history of modern architecture—including such contemporary luminaries as Peter Eisenman, Frank O. Gehry, Daniel Libeskind, and Moshe Safdie—architecture has been and, to a large degree, remains an elite, Anglo-American field. Like other professions, architecture in the United States has been one way for individuals to escape rather than assert their ethnicity or heritage.

Today, the question of Jewish identity in architecture has again risen to some prominence internationally. This past April, for example, *The Future of Jewish Heritage in Europe*, an international conference organized in Prague, explored issues related to the conservation of historic Jewish sites. A recent spate of books, including historian Samuel Gruber's *American Synagogues* (Rizzoli, 2003), and Henry and Daniel Stolzman's *The American Synagogue: Faith, Spirit, and Identity* (Images, 2004) evidence the surge in interest (see page 70).

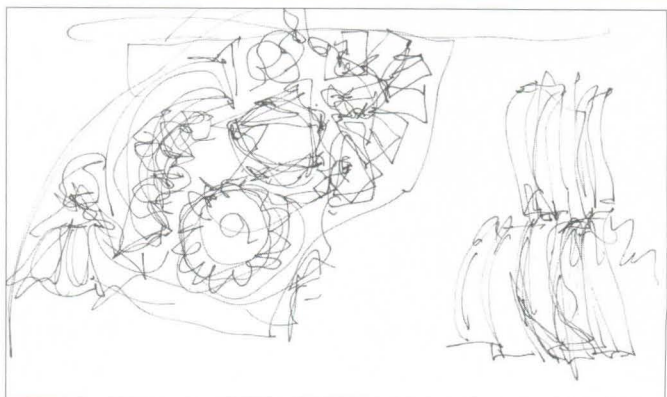
On view through September 2004, Amsterdam's Jewish Historical Museum's traveling exhibition *Yibaneh! Jewish Identity in Contemporary Architecture* (see "Buildings Building Community," page 24) features a number of well-known projects. And more critically, the conference *Architecture, Urbanism, and the Jewish Subject*, organized this past March at Pennsylvania State University by architecture professor and curator David Gissen, brought together architects, historians, curators, and artists to discuss the possibility of a new academic pursuit that might be called "Jewish architectural criticism."

## IDENTITY POLITICS

In the past, historians and architects concluded that only buildings with a specifically Jewish purpose—a synagogue, for example, or the ritual *mikvah* bathhouse for Orthodox women—should be included within histories of Jewish architecture. At the Penn State conference, by contrast, many argued that any architecture that aims to delineate "authentic" Jewish experience must include those spaces in which Jews have historically congregated: from the *shtetls* and housing collectives to the *kibbutzim* and settlements that



Zvi Hecker's 1995 Heinz Galinski School (above) in Berlin and Frank O. Gehry's Museum of Tolerance (below) in Jerusalem—now underway—are both in an Amsterdam show on Jewish identity and architecture.



have defined Jewish experience in Israel, the United States, and around the world.

For example, a presentation at Penn State by Leah Garrett, who teaches English and Jewish studies at the University of Denver, focused on the ways in which Yiddish writers conceived “Jewish space” in Europe in the nineteenth century. Garrett argued that, despite the alienating effects of being forced out of their homelands throughout history, Jews did not lose their culture by virtue of physical displacement; instead, they brought it with them to new lands. Nineteenth- and early twentieth-century Jews in transit, like other transient peoples, “recoded” the new spaces they encountered and used (such as segregating men and women in different train cars when travelling), says Garrett, asserting religious, ethnic, and cultural sensibilities within these new landscapes.

In a more thought-provoking session, practicing architects

☞ **Nineteenth- and early twentieth-century Jews in transit “recoded” the new spaces they encountered, asserting religious, ethnic, and cultural sensibilities within these new landscapes.**

including Alexander Gorlin, Stanley Tigerman, and Allan Wexler challenged the audience to talk about Jewish identity and architecture without reference to the current vogue of museums and Holocaust memorials. Gorlin, Tigerman, and Wexler preferred instead to move the conversation forward—or, perhaps, even backward in time—to the early twentieth century, before Hitler’s rise to power and before the creation of the state of Israel. They suggested that the discussion of

Jewish space should not be connected to complex historical or political issues like the Holocaust or, for that matter, the state of Israel, in order to engage ideas about architecture and Jewish identity.

#### PARADIGM SHIFT

This shift in the tenor of the conference was dramatic in comparison to previous examinations of Jewish architec-

## ON VIEW IN AMSTERDAM: BUILDINGS BUILDING COMMUNITY

If it’s architecture and it’s in Amsterdam, it must be topical. The exhibition *Yibaneh! Jewish Identity in Contemporary Architecture* currently on view at the Jewish Historical Museum is no exception. Running through August 29, the show features sixteen buildings for Jewish institutions—synagogues, museums, and schools—designed by twelve international architects. The exhibition explicitly links Jewish architecture with the complex and challenging subject of *identity*, and as such is part of an emerging interest in the topic. As Jewish architects—and certainly buildings for Jewish people—are not novel, the question arises: Why the interest now? Fifty years ago, analysis of art or architecture from a racial or cultural perspective may have been taboo, but today it is commonplace. Moreover, in our current time of rising anomy and alienation between cultures, architecture is in a position to play a significant role in enhancing community bonds.

In the nineteenth century, when an increasing number of synagogues and structures to accommodate Jewish communities were commissioned, an “orientalist” or Eastern-Mediterranean style emerged that remains common to this day. Whatever the justifications the architects—Christian and Jewish—employed for the use of these styles, the buildings evoked memories of old synagogues or spatial motifs of bygone settlements. The adoption of this style has its origins in the eighteenth century when German philosophers who classified Jewish culture as primarily auditory, as opposed to the Christian tradition that was principally considered visual. The Jewish religion forbids idolatrous depictions of the human form in its temples, so this geometrically derived style must have seemed appropriate.

More recently the Italian critic Bruno Zevi (1918-2000) and

contemporary American architect Stanley Tigerman, both students of Jewish philosophy and mysticism, have posited that Jewish architecture is about openness and creativity. Tigerman, in particular, argues that Judaic design does not follow any “rules of composition” as in the Greco-Roman classical tradition. For example, in the Jewish religion, the scriptures are discussed openly and it is a continuous dialogue, not a dogmatic doctrine to follow. Indeed, projects by Frank O. Gehry, Zvi Hecker, and Daniel Libeskind in the Amsterdam show all share open spatial organizations that formally suggest the Jewish belief in creative innovation rather than a closed organization of space, or what Tigerman has called “hierarchically unchanging aesthetic values.”

But more fundamentally, an approach to knitting together community bonds and creating a moral Jewish life is achieved by living by the most basic principles of faith. So a nonoppressive, caring, sustainable architecture, an architecture where humans can engage in creative dialogue, is a truly Jewish architecture. Inheriting Louis Kahn’s idea of “servant” and “served” spaces, for example, (as he termed his divorcing of mechanically functional spaces with those used by humans), such an architecture should make human connections, a sense of community, and “social quality” or “design ethics” a priority. A more recent example is Tigerman’s 1976 Illinois Regional Library for the Blind and Physically Handicapped in Chicago. Unfortunately, the present exhibition doesn’t stress this approach, which leaves an opportunity for future events and publications.

**Alexander Tzonis recently completed *Emergence of Modern Architecture: A Documentary History* (Routledge, 2004) with Liane Lefavre.**

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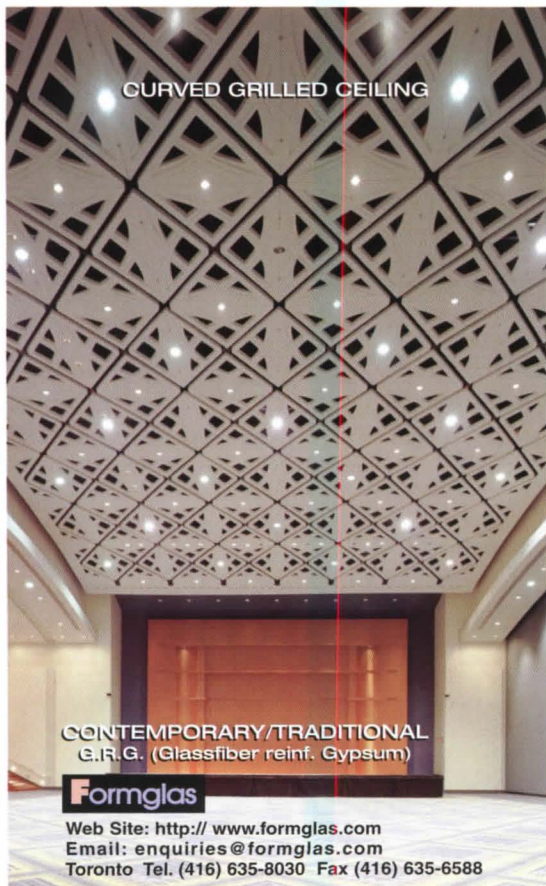
While Daniel Libeskind's Jewish Museum in San Francisco (left), to be built by 2007, is surely a Jewish building, this Miami condominium (right) is arguably much closer to today's Jewish-American architectural experience.

ture such as those by Peter Eisenman, whose writings have tried to define the essential qualities of a Jewish building. In our current climate, however, many practicing architects, architectural historians, and critics are exploring how group identity results from experiences within built environments, rather than as the result of deliberate efforts by architects or urban planners.

As with studies of other cultures and ethnicities, recent discussions of Jewish architecture have shifted from examining buildings as essential expressions of professional or group identity—looking at structures as Jewish because of the architects who designed them or the com-

munities served by them—and instead examining similar places and structures to see how they are used by different constituencies. In reality, Jews, like many other groups, claim and use space that may or may not reflect any conscious desire on the part of the architect to create a sense of Jewish community. This new dialogue promises to inform how designers will build—and restore buildings—in the future.

**David Serlin is a historian and author currently writing a book about issues of race and disability in twentieth-century architecture.**





## MY BIG, FAT, GREEK OLYMPICS

With new infrastructure and public spaces, Athens gets a lasting hostess gift. by Richard Ingersoll

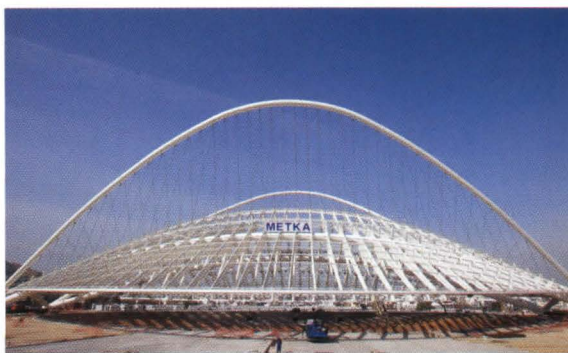
Two questions about Olympic Athens seem to linger: Will the city be able to finish all of the construction in time for the games, and will it be safe from terrorism? But the real question should be: Will Athens be left a better place? The Olympics, after all, usher in a brutal, two-week invasion of 10,000 athletes, a 20,000-strong press corps, 3,000 officials, and hundreds of thousands of fans.

To its credit, the projects planned by Athens, somewhat on the model of the transformation of Barcelona in 1992, have been conceived on a comprehensive scale with an ulterior goal of modernizing the city's infrastructure. Unlike Barcelona, however, there is little sense of an underlying design culture in Athens, and the numerous interventions seem at times like incongruous accessories pinned to the languishing body of an intransigent giant. Because the city is chronically underdeveloped, modernization has come in spurts, political wrangling has frequently interrupted progress, architects have been regularly excluded from the planning process, and corruption has been difficult to tame.

The Olympics have offered the pretext for the city to change its international status. Athens is a big city of more than 3 million residents in a country with a population of a little more than 10 million and a relatively small gross national product. The profusion of construction projects for the Olympics (70 percent financed by the International Olympics

Committee) and for other public works (50 percent financed by the European Union) has significantly boosted the Greek economy during the past four years to a growth rate double the norm of other European countries. The games can already be declared to have spurred increased national prosperity, as witnessed by scores of recently opened luxury shops, trendy night clubs, and multinational offices. Moreover, extensive urban interventions—not just sports

buildings, but highway extensions, a new airport, the doubling of the metro system, pedestrian streets, historic restorations, and renewal districts where entire blocks have been rebuilt—have turned the whole city into an immense construction site. Immigrant Pakistani and Albanian workers can be seen everywhere, doing their best to finish the projects, and, whether all the works are finished on time or not, the games will begin on August 13 and Athens will have succeeded in converting itself from spinster of despair and lethargy into the glowing bride of global cities.



Journalist housing behind the tennis arena going up in the nick of time (top). Nearby, the roof for architect-engineer Calatrava's iconic velodrome (above) being put in place.

### ANCIENT SITES AND MODERN LINKS

Athens is a city of almost uniform fabric, spreading endlessly with six-story orthogonal blocks, interrupted only briefly by landmarks such as the Acropolis and the cone-shaped Lycabettus Hill. Over the past three decades, the collection of ancient sites in the center city has become a two-mile cultur-



The redevelopment of Faliro (left), conceived by French architecture firm Reichen & Robert (right), is transforming this former industrial waterfront into a recreation area accessible by both public transportation and car.

al park that extends from the Panathinaikon Stadium up to the Acropolis and down to the Agora and the Dipylon Gate. While this immense greenbelt for antiquities is a marvelous feature for tourists (and home to the city's legion of stray dogs) it creates an irresolvable lacuna in the center of the city, impeding vehicular movement in all directions.

Despite the problems of living in an archaeologically endowed city, in the name of the Olympics, Athenian planners have been trying to create modern links amid the city's currently chaotic transportation network. The greatest success has been the expanded metro system, currently nearing completion, doubling its extent by 11 miles and 21 new stations. The decision to put the new Venizelos Airport, finished in 2001, in the northeastern hinterland has created a new nexus with retailers like Ikea settling right next to it. A new highway leads there, and the airport will soon be connected by rail to the central metro system. Other transportation projects include a new tramway and an extension of the national highway to meet the Port of Piraeus. While this new infrastructure will not resolve all traffic problems, it is a significant start.

There are a dozen Olympic venues scattered in and around Athens, but two sites in particular are being significantly redeveloped. The major area known as O.A.K.A. (the Greek acronym for "Olympic stadium of Athens") wraps existing stadiums and convention halls into a discrete campus in the northern suburb of Maroussi. It includes the Olympic stadium, the velodrome, the swimming and tennis arenas, and the media center. In the hopes of repeating Barcelona's success, the organizing committee enlisted the Spanish architect and engineer Santiago Calatrava to oversee its masterplan, retrofit existing buildings, and design additions.

Over the velodrome racetrack, built in 1982, Calatrava weaves an exoskeletal butterfly roof of exceptional iconic presence onto the structure. The roof was pulled into place on parallel rails so as not to disturb the existing structure. An even greater engineering feat was achieved with the assembly of the glazed roof over the Olympic Stadium, also built in 1982, suspended from two freestanding, 900-ton steel arches that were also put in place by means of parallel rails. These two roofs, which will no doubt become Olympic symbols, were also the

most costly items in the budget. Their spectacular white steel structures, however, arranged like clusters of lacy chrysalises left by colossal insects, do more to reinforce the identity of the architect than that of the city. (People are already beginning to call the area "Calatrava.") Between them lies the Plaza of Nations, a public space for 200,000 people covered by a curved pergola made of 100-foot-tall paraboloid hoops. After the games have come and gone, this spindly fairgrounds, looking like a comic-book idea of the city of the future, will remain a suburban enclave for sports and conventions.

## RECLAIMING THE WATERFRONT

The second major site is the coastal district of Faliro, a run-down former industrial area to the east of the Port of Piraeus that is being transformed into a pleasure harbor and grand esplanade. The master plan by French architects Reichen & Robert connects the bottom of Syngrou Boulevard, the principal artery leading to the center city, with a broad, planted viaduct for pedestrian access to the docks. An elegant new stadium for taekwondo by Greek firm Thymios Papagiannis & Associates has been built immediately to the east of the giant ramp. The waterfront, fitted with boardwalks, kiosks, pergolas, and play spaces, sprawls a mile to three other stadiums: a new beach volleyball facility (for later use as a concert venue), the renovated 1985 Peace and Friendship basketball stadium, and the completely rebuilt Karaiskaki soccer arena. Between the latter two venues lies a new metro station and the off-ramps of the national highway. The embankment itself combines both picturesque and formal landscaping, consistent with the contradictory spirit of Athens.

Once the games are over, Faliro is destined to be the major social legacy of the Olympics: cleaned up, accessible by foot, tram, metro, and car, it is a great waterfront landscape. The games will be a decisive moment in Athens's evolution toward becoming a modern city. Much will not be finished on time, and the debt required will weigh upon the future, but the new infrastructural network radically transforms the city into a more practical, pedestrian-friendly urban system. What will endure after the Olympics is how Athens, through renewals such as Faliro and the new tramway, will be opened up to Greece's greatest asset, the sea. ■



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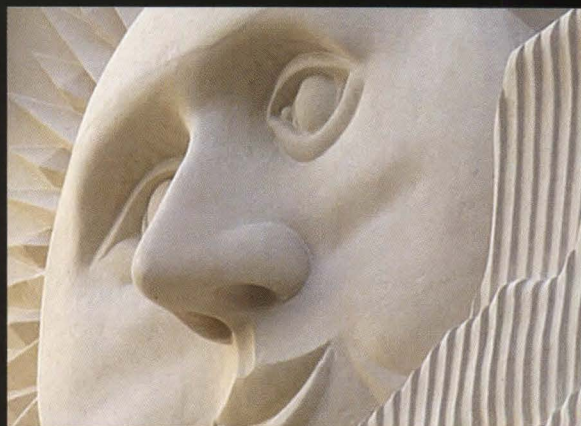
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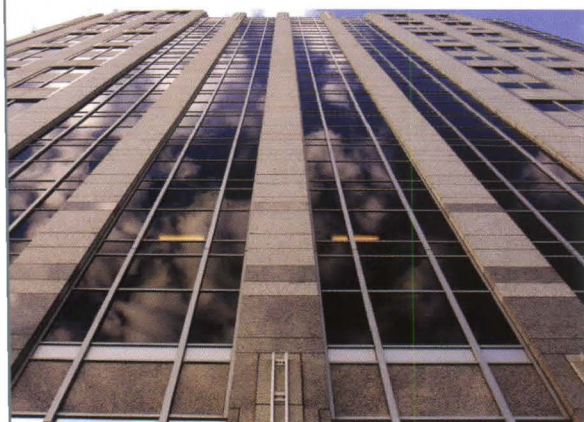
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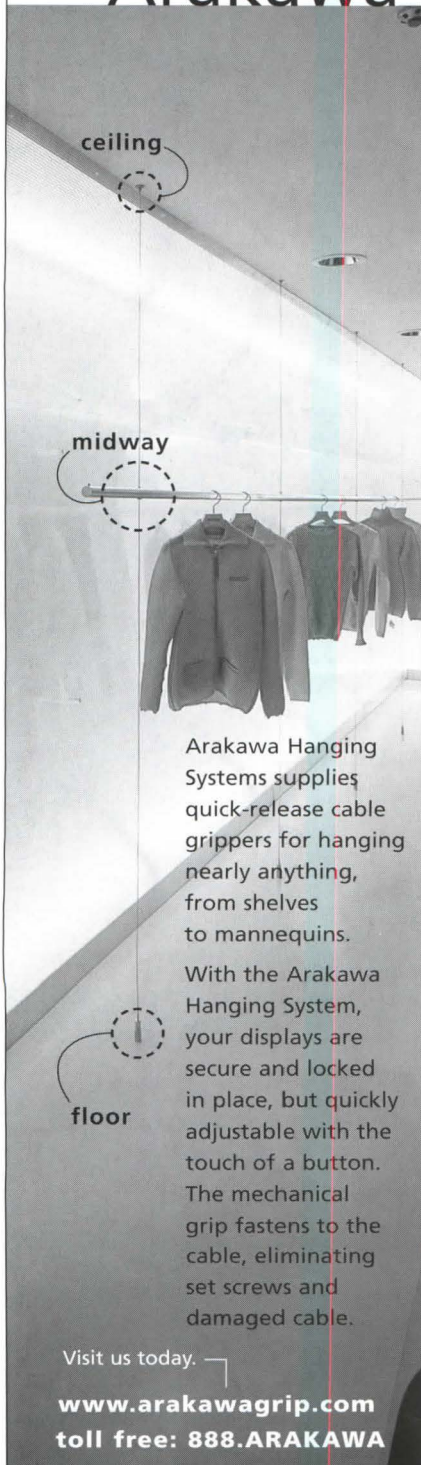
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## FOR CONTRACTS, COMPENSATE VALUE, NOT TIME!

A newspaper reporter once asked a farmer if his neighbors had ever tried to steal his chickens. The farmer replied, "No, they're very honest." The reporter then eyed a shotgun leaning near the door, and the farmer offered, "That's to keep them honest."

Contracts are shotguns.

They typically contain a lot of boilerplate, which, as legal documents, they need to have. But they also have content that doesn't require a degree in law to understand. Drawing on specific contract-related problems that design firms have encountered, certain elementary aspects warrant particular attention. Most critically, contracts should clearly define:

▫ **Project scope.** This usually covers what the architect is required to provide but it also can define expectations of others involved in the process, most notably, the client. This is particularly helpful when the real client has retained a "program manager" to serve as a day-to-day representative. (This situation can create huge problems for the design-and-construction team if the program manager's values and measure of success differ from those of the client.)

▫ **Basis for compensation.** This should include deliverables and services not included in basic project scope, as well as compensation for costs and inconveniences to the architect created by **client-caused delays** (such as extended review periods, or stopping a project already underway). Last, contracts should define compensation to the architect in phases of work in which someone other than the architect largely controls the process. The **construction phase** is generally of greatest concern.

A few other general contract strategies are worth considering. First, the more architects sell time rather than value, the more downrange financial difficulty they are likely to create for themselves. Think of it in these terms: If an architect provides a service in 5,000 hours, for which compensation is hourly, at perhaps \$90 per hour, the fee will be \$450,000. If the architect then provides an identical service, but is able to deliver it in 4,000 hours based on learnings of the first time, is it worth 20 percent less to the client? Probably not, but that's what selling time does.

**Value-based pricing** says that if the service is worth \$450,000, it's worth that amount irrespective of the time required to deliver it. Profit potential increases with improved efficiency in value-based contracts, but decreases with improved efficiency in time-based contracts.

A final point is that success (financial and otherwise) is generally most accurately determined on a **project basis**, not a phase basis. When architects talk of making money in design and losing it in later phases, they misunderstand a big part of what happens, which is this: AIA-based contracts (which covers most contracts, even those not in AIA formats) allow the architect to bill for work in early phases before it is complete. Because of that, the architect bills behind the rate of work completion in later phases. Stated differently, if the 15 percent billing point actually represented completion of 15 percent of the project, decisions made after that point wouldn't alter the results of decisions made previously—a phenomenon that probably has never occurred. In light of this, to understand truly a project's financial status, the architect must have more accurate measures of the scope completed than, "We've finished schematics, so we're 15 percent complete." The reality for most projects is that at best the nominal 15 percent completion might represent 12 percent actual completion.

Finally, as a formal agreement, the contract has to cover things with comprehensiveness and legality. Without those attributes, it's akin to that farmer's shotgun not being in working order—meaning that it might explode, rather than fire, if one pulls the trigger.

**Hugh Hochberg is a principal with the Seattle-based consulting firm The Coxe Group.**

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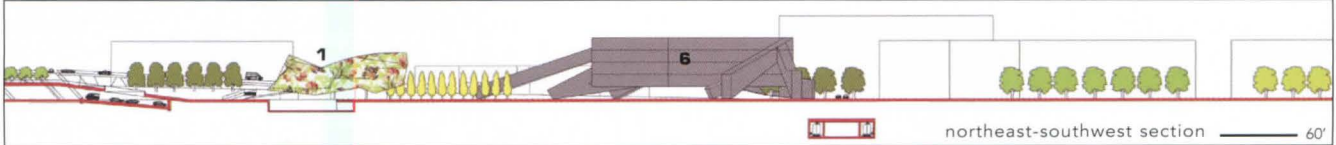
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→ INSIDE OUTSIDE, MICHAEL MALTZAN ARCHITECTURE, AND MIRKO ZARDINI | GARDENS OF PORTA NUOVA | MILAN

A team comprising Amsterdam-based landscape firm Inside Outside, led by principal Petra Blaisse, Los Angeles-based Michael Maltzan Architecture, and Milan-based architect and urbanist Mirko Zardini, has conceived Milan's new Gardens of Porta Nuova as an urban campus with multiple programs. Set in a densely urban mixed-use setting adjacent to a number of planned high-rise buildings, the \$84 million project includes 25 acres of park—botanical gardens, trees, orchards, and water features, all punctuated by plazas—and 250,000 square feet of buildings: a fashion school, exhibition spaces, restaurants, bookstores, a sports center, and a community center.

The main theme for the campus is connection; the park is criss-crossed by a system of paths intended to link its disparate elements. The shapes created by the intersecting pathways at times host buildings but are mostly planted with different species of herbs, shrubs, or flowers. Groups of trees, in circular formations, superimpose themselves on this network. Together the landscapes form a botanical collection, a "Library of Trees" as the designers have dubbed the park. The international team received the commission through an invited competition sponsored by the city of Milan. Other finalists included Kathryn Gustafson, Martha Schwartz, Adriaan Geuze, and Peter Walker, as well as a number of Italian teams. Once the project makes it through the city's approval process, construction will be scheduled. **Bay Brown**

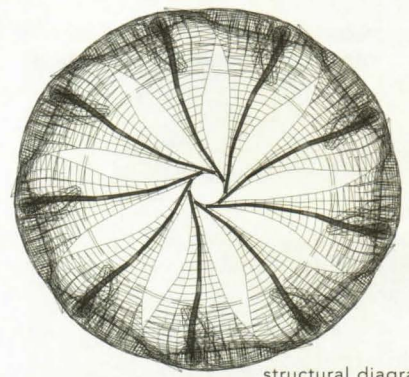


- 1 performance and exhibition spaces
- 2 sports center
- 3 museum and media library
- 4 existing studios
- 5 children's daycare and senior center
- 6 fashion school

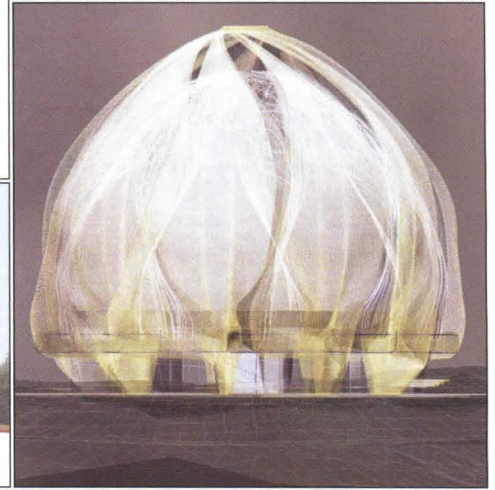
➔ HARIRI PONTARINI ARCHITECTS | BAHÁ'Í MOTHER TEMPLE | SANTIAGO, CHILE

A competition for the design of the Bahá'í Faith's "Mother Temple of South America" in Santiago called for a nine-sided domed structure with nine entrances to symbolically welcome people from all directions. Toronto-based Hariri Pontarini's winning scheme clads a 14,600-square-foot dome in translucent marble "leaves," creating a light-filled space by day and a luminous presence at night. "Light, the connecting force of the universe, shapes all aspects of the design," says Siamak Hariri.

Wood tracery clads the interior spaces, which are divided into a communal room for 600 and nine small alcoves at the perimeter. Lily pools and gardens encircle the dome. While the design has an ethereal quality, a steel structure keeps the building sound in this seismic zone. Completion in 2007 will put Bahá'í mother temples on all continents. The Bahá'í Faith was established in Persia in the nineteenth century. Today, with five million adherents, its spiritual center is in Israel. **Bay Brown**

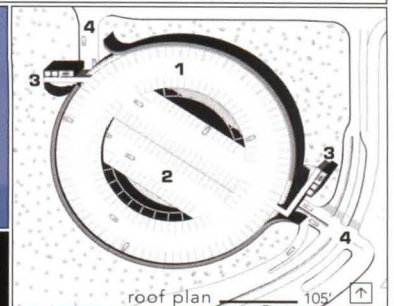
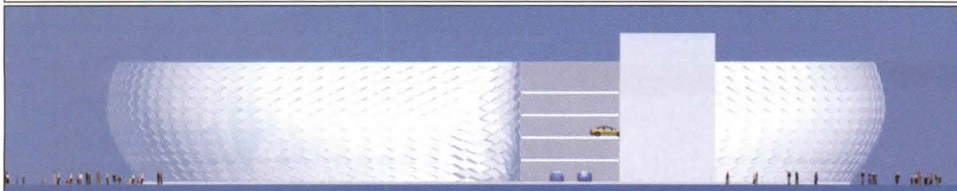


structural diagram



➔ WOLF ARCHITECTURE | UCSD REVELLE PARKING STRUCTURE | SAN DIEGO

The University of California, San Diego (UCSD) might have the prettiest parking garage on the boards in recent memory—under the cover of night, at least. Clad in translucent, diamond-shaped polycarbonate panels sized to standard sheets, the 2,100-car bowl achieves a level of efficiency approaching that of conventional parking garages in spite of its circular plan. The structure comprises standard column and beam forms and post-tensioned slabs, with wedge-shaped voids cut into the floors to admit light and to reduce the amount of concrete and other materials needed. The floor plates get wider as they rise, and the cladding—tipped glazing units that add a weaved texture as they vent the building—pulls back slightly at the bowl's lip. (Elevator and stair towers are external to the parking area so as not to compromise the quasiparaboloid.) At night, the resulting auto-urn transforms headlight glare into ethereal, kinetic glows; by day, the purist geometry stands as a neutral figure within a cluster of theater buildings. The construction schedule of the 660,000-square-foot garage, and the planting of 222 eucalyptus trees on the site, is under review. **C.C. Sullivan**



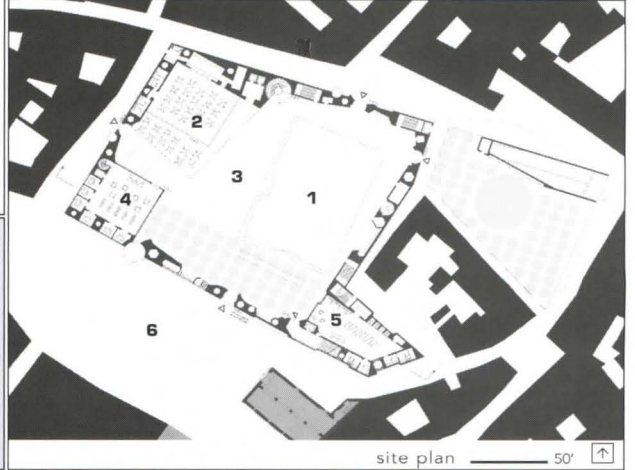
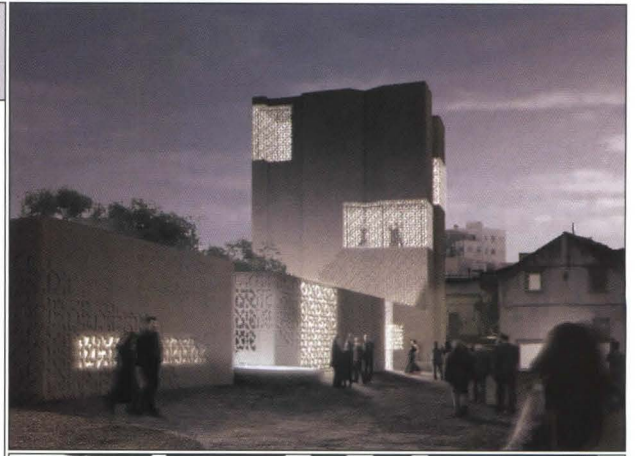
roof plan

- 1 parking
- 2 up/down ramp
- 3 elevators and stairs
- 4 entrances

➔ **HERZOG & DE MEURON | CITY OF FLAMENCO | JEREZ DE LA FRONTERA, SPAIN**

Hoping to join the list of revitalized Spanish destinations like Bilbao and Barcelona, the city of Jerez de la Frontera, a small city in the Andalusian region, held an invited competition for the “City of Flamenco,” a cultural center devoted to promoting Jerez’s status as the birthplace of flamenco, the famous Spanish gypsy dance. Swiss superstars Jacques Herzog and Pierre de Meuron were selected to design the center on a long-vacant lot in the historic city center.

Enclosed in a walled compound, the center houses dance studios, underground classrooms, an auditorium, a library, a museum located in a lookout tower, and a public garden of reflecting pools and orange trees. Made of regional stone punctuated by concrete screens in Moorish and Andalusian patterns, the enclosure reinterprets the traditional street wall found in much of the area. When complete the complex will enclose 75,000 square feet. **Julia Mandell**



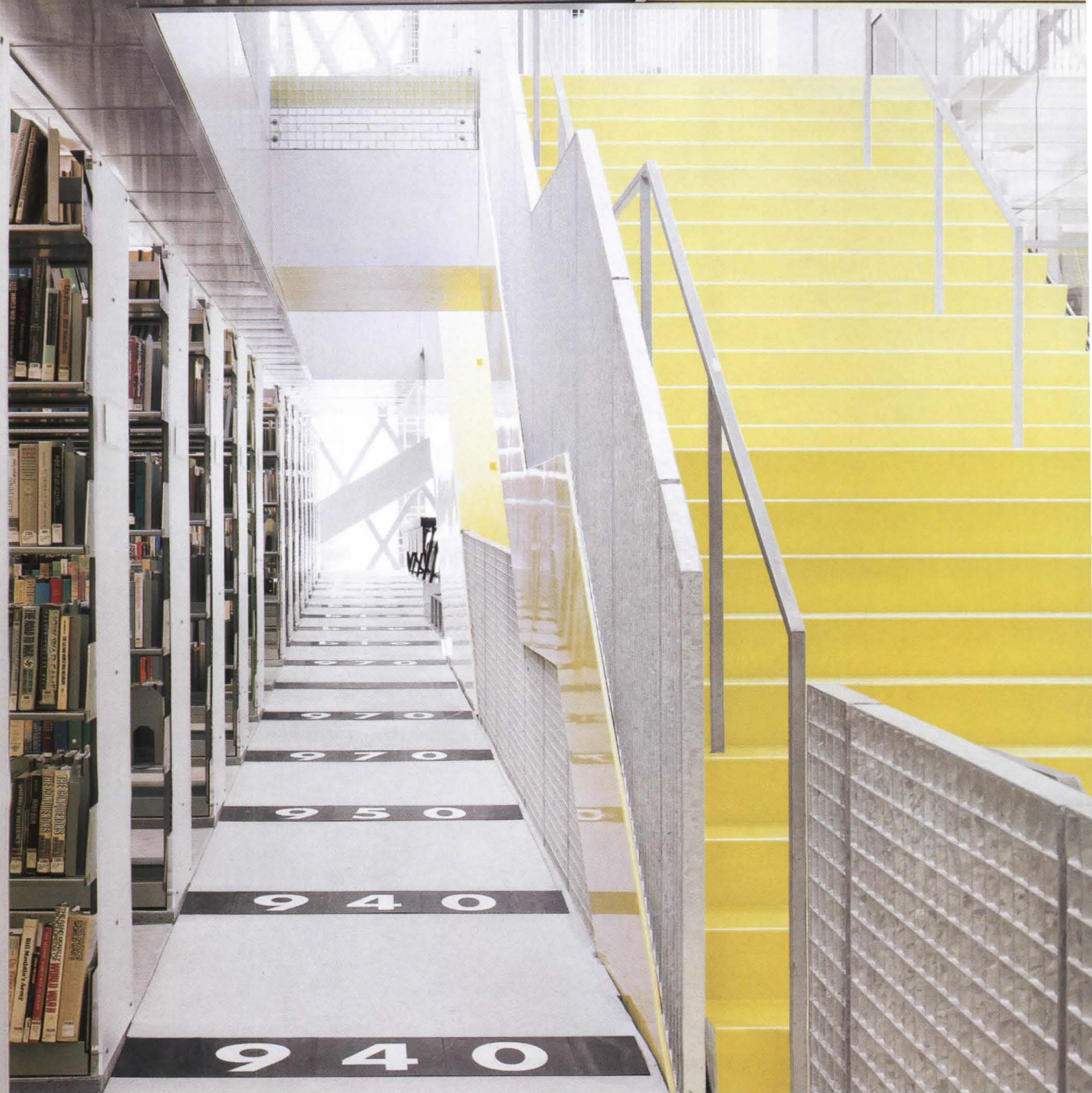
- 1 auditorium
- 2 trees
- 3 courtyard
- 4 library
- 5 media lab
- 6 plaza

➔ **JANET ROSENBERG AND CORBETT CIBINEL ARCHITECTS | CITY CROSSING | WINNIPEG, CANADA**

As is the case with so many car-oriented cities built in harsh climates, Winnipeg is seeking ways to activate pedestrian life while minimizing the dangers of a simple pleasure—crossing the street. A competition-winning scheme for the redesign of the windy, multilane intersection of Portage and Main streets in the city’s financial district reinstitutes safe passage, connecting the ground plane to both an existing subterranean retail concourse and, in a more figurative manner, to the forested banks of the Red and Assiniboine rivers. Collaborators Toronto-based Janet Rosenberg & Associates Landscape Architects and local firm Corbett Cibinel Architects transform this place of motion into one of repose, planting circular stands of indigenous woodland species that, over time, reforest the city with “green corridors.” Vertical plastic light-tubes, partially powered by wind turbines, puncture the ground plane, bringing natural light to the concourse below, while “glass silos” mark concourse entryways. The designers remove 25-year-old concrete barriers and transform a lane of traffic into a median planted with prairie grasses and trees. Realization of the project is tied to ongoing fundraising efforts. **Abby Bussel**



- 1 light forest
- 2 glass silo entry
- 3 skylight
- 4 sculpture/statue
- 5 new trees



## booked

Despite all the bits and bytes that have transformed the word from printed to pixellated, and space from real to virtual, libraries large and small have invested enormous sums in new and renovated buildings in recent years. Why? Perhaps because we still like communal reading rooms and holding bound volumes in our hands. Even Rem Koolhaas, who thinks we should rethink everything we think about, contends that the book remains a valid form of communication. But for Seattle's new central library, he and partner Joshua Ramus have reconceived the way in which books are accessed and how public space is designed. A diamond-shaped grid of glass and steel wraps their building—a squat, crystalline alien on the streetscape. Look up through the angled walls of the monumentally scaled "Living Room," or down through the massive flat plane that hangs over a deep sidewalk, and suddenly it's the city that becomes the building envelope—three-dimensional wallpaper for the reading public. Books, too, are visible on a grand scale: A squared-off spiral of gently ramped spaces in the building's midsection hold stacks (above)—nearly 75 percent of the collection. Nothing is hidden here. Transparency reigns. Like the city it serves, the new library is a big, loud generator of urban life. ■



# reading rem

Seattle's new library by Rem Koolhaas is a tribute to the human spirit—and technological obsolescence.

BY LAWRENCE W. CHEEK | PHOTOGRAPHS BY LARA SWIMMER





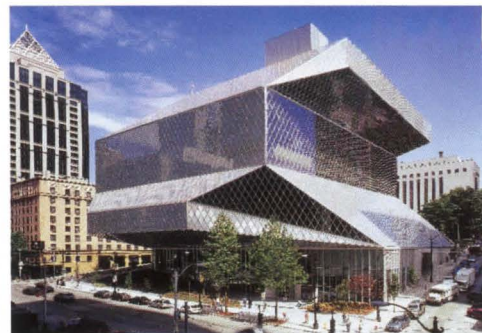
Set on a steeply sloped site that falls away from this plaza (which hides underground parking), the library's odd form reflects stacked functional levels: from bottom to top, information areas, meeting spaces, book stacks, and administrative offices. Some 10,000 panes of glass with aluminum mesh wrap the building.

Seattle's city librarian, Deborah Jacobs, doesn't pause or equivocate when she's asked what the glittering glass starship newly landed in the heart of downtown celebrates. To her, it represents neither the power of architecture, nor the glory of the written word, nor even Seattle's ascendance in the constellation of digital technology. "Democracy," she declares instead. "It's the people's palace."

Really? When in the history of architecture has a people's palace appeared so bombastically mannered, so intellectually high-strung, so evidently aloof from the rabble around it? A reader's letter to the *Seattle Times* five years ago, responding to the Office for Metropolitan Architecture's early model for the Seattle Central Library, called the scheme "pure ugliness and stupidity cloaked in a honeycomb of elitist self-importance." The letter went on to suggest that the city just dig out the blueprints for its 1906 Carnegie library and rebuild it.

But those early assumptions, and today's sidewalk impressions, don't survive passage through the door. Inside, it's instantly apparent that what designers Rem Koolhaas and Joshua Ramus have done here is nothing less than reinvent the public library on at least three fronts—form, function, and spirit. And it's that last quality, spirit, that is the most resounding achievement. On May 24, the library's first day of normal business, crowds dispersed into its nine public levels, applying for borrower's cards (461 new ones were issued that day), staking out computers, staggering through electronic checkout under tottering mountains of books, registering to vote, sipping mochas in the cavernous third-floor "Living Room," animatedly debating design features—doing everything but slinking about in reverential awe. The building was literally abuzz with human energy.

Has a creation with such high aspirations ever turned itself over, so quickly and thoroughly, to the public? On its first morning in business, the spirit of the \$155 million palace seemed more akin to Pike Place, the famous Seattle farmers' market six blocks away, than to that of the St. James Cathedral up the hill.



### PLANNING FOR OBSOLESCENCE

This project was laced with hazards. Despite the impressive wave of dazzling new urban libraries across North America—in Vancouver, Phoenix, San Francisco, Salt Lake City—no other building type today is so exposed to potential instant obsolescence. (After all, no one can predict how information may be stored and fetched 20 years from now or whether there will even be any need, other than nostalgic, for a book barn with a street address.) Plus, Seattle's downtown location served up a tight, steeply sloped site—and a large number of homeless people with no place else to evade the rain.

Early in the programming process, library officials and the architects convened at Bill Gates's home and then at Microsoft headquarters for brainstorming with tech gurus. The challenge, as Jacobs succinctly puts it, was to "create flexibility for an unknown future without building a dumb box." The scheme that emerged seems at first glance to downplay the future of the printed book—only 32 percent of its 363,000 square feet is devoted to book stacks—but that totals 1.4 million volumes, up half a million from the previous building. Still, arrows are pointing toward digital technology: The library opened with 400 public computers (its predecessor offered 30) and free wireless networking throughout.

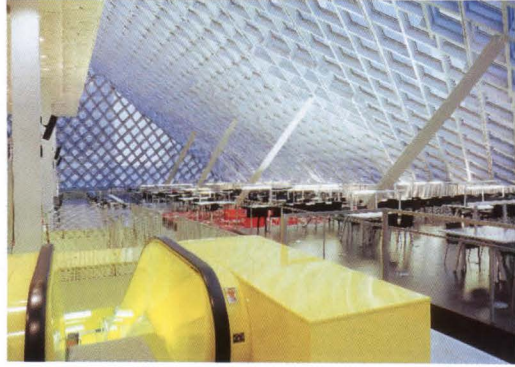
The key to the building's organization is a stack of programmatic clusters dedicated to specific functions: public interaction and meetings, reference, reading, main book storage, and administration. Each platform has a unique form and character, making it unlikely that computer stations or books will



info

the norcliffe foundation living room

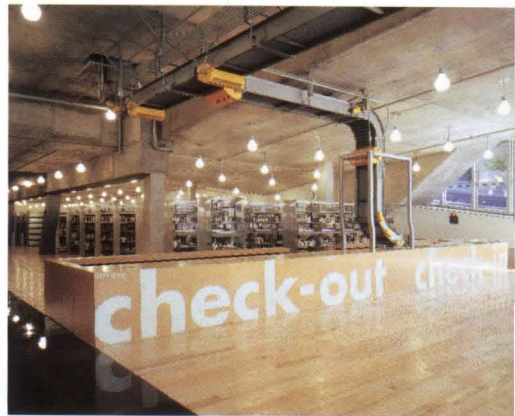
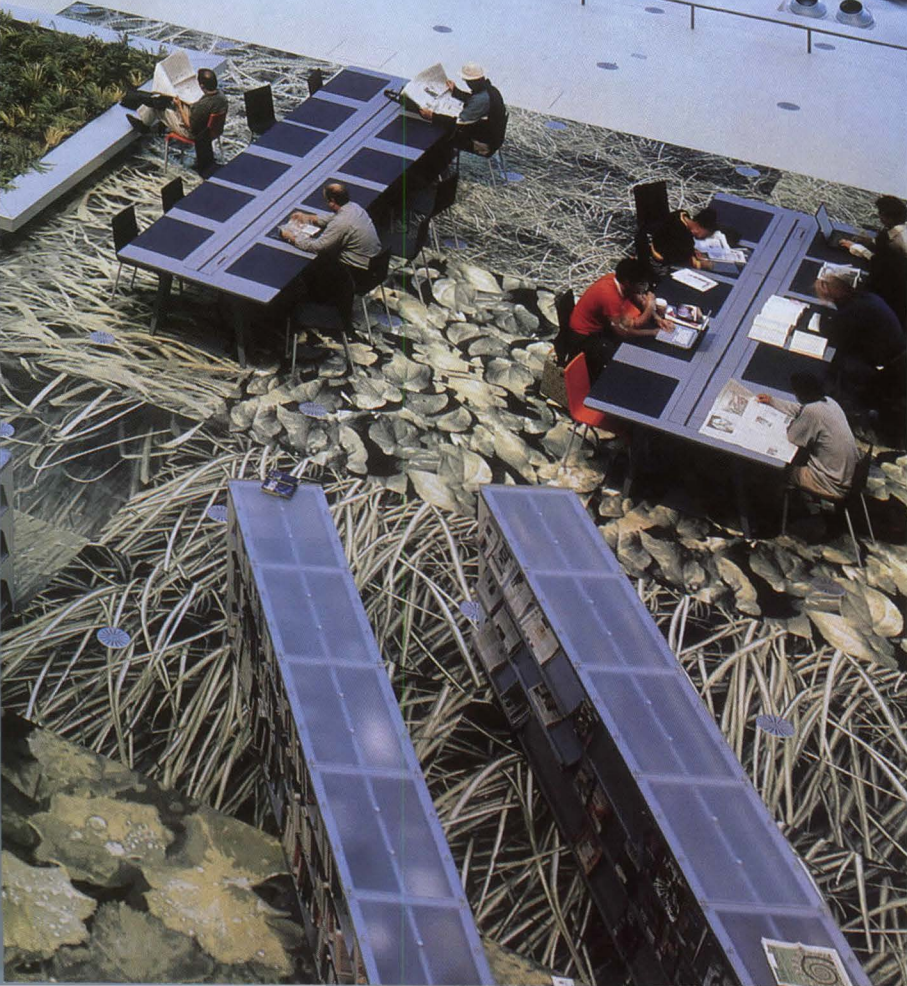
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The "Reading Room" (above) on the 10th floor seats 400 and offers views of the city and its waterfront.

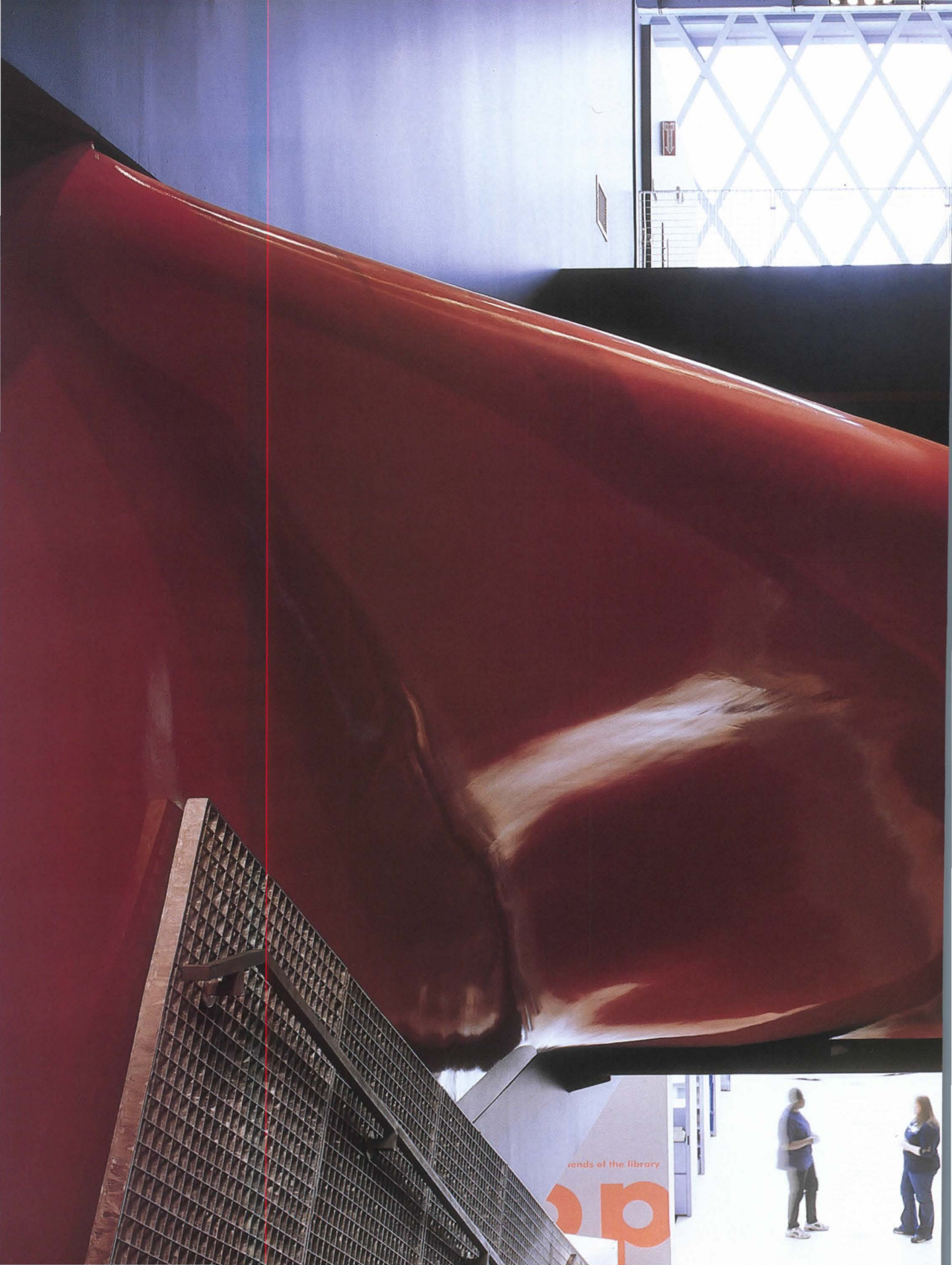


The "Living Room" (left) holds fiction and periodicals. The "Mixing Chamber" includes a large computer area (above).



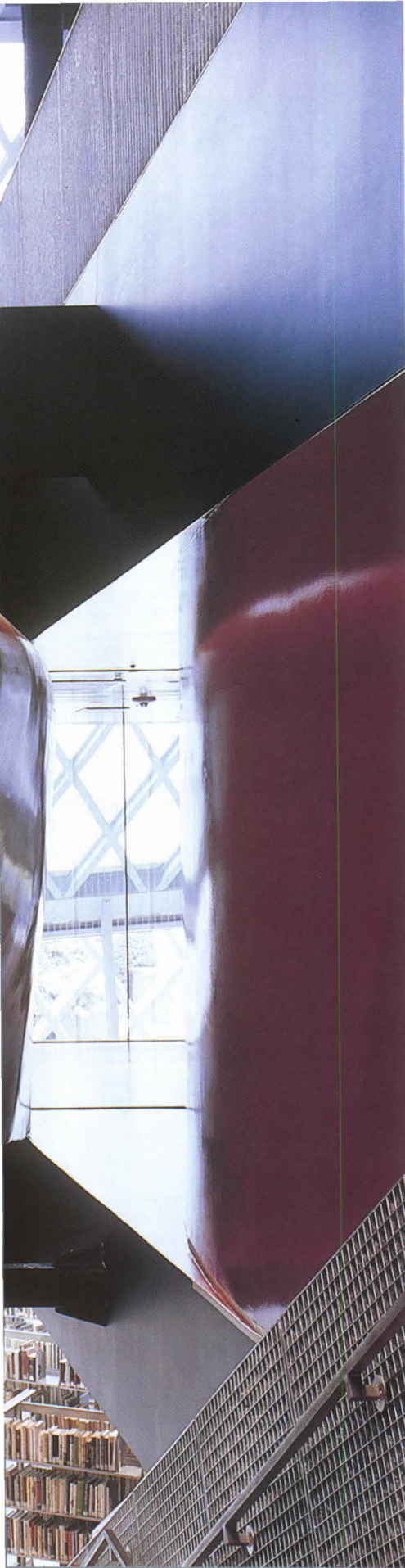
The children's library (below) has bookcases of ascending height for growing readers. Checkout is on the third floor (above).





ends of the library

op



expand and flood out of their natural boundaries to encroach on each other or into public spaces—the inevitable tendency in a dumb-box library. The platforms also happen to jut, crease, overlap, and slash, creating a complex geometry with fascinating views of city, sky, and street from almost everywhere inside.

### INDOOR PARK, INDOOR TREEHOUSE

The third-level Living Room is a vast, atriumlike space that seems certain to become the central park that Seattle never had. On opening day visitors could be overheard commenting on the “wasted space,” but they seemed to be marveling, not carping. The diamond-patterned I-beam exoskeleton of the curtain walls infuses the space with a tension and elegance that might have been absent in a right-angled scheme. And the tall space isn’t energy-inefficient: HVAC vents in the floor are engineered to heat and cool only a 10-foot-high envelope.

The fourth level, which houses public meeting rooms and a technology training center, is pure fun, an ironic contradiction of the sober functions it serves. The glossy red, free-form labyrinth connecting the spaces suggests the digestive tract of a huge sea mammal or a convention center on the planet Mongo. The fifth level is a reinterpretation of the traditional reference desk it contains: the “Mixing Chamber,” a trading floor of information where reference librarians roam freely and work one-on-one with patrons, communicating with colleagues by wireless devices. Levels six through nine are the book stacks, arranged in a continuous rectangular spiral set at a 3 percent grade. It’s an ingenious solution to the floor-by-floor division that plagues browsers in conventional libraries.

And finally, the 10th level offers a contemporary riff on the grand reading room: a jazzy glass treehouse thrusting into the sizzle of the skyline—a place to connect with Seattle’s urban energy, not slip into monkish retreat. This room, and in fact the whole building, acknowledges and applauds the fact that about a decade ago, more than half of the human race had finally congregated in cities. Our natural habitat is now steel, glass, concrete, and enterprise; let us rejoice.

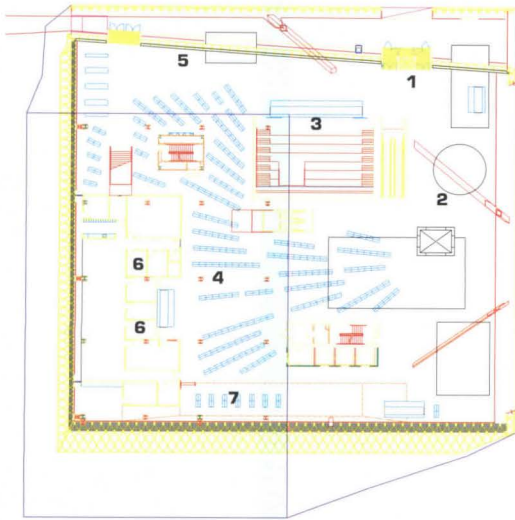


Stairs to public meeting rooms on the fourth floor are lined in deep red (facing page), as is the rug in the “Living Room” (above).

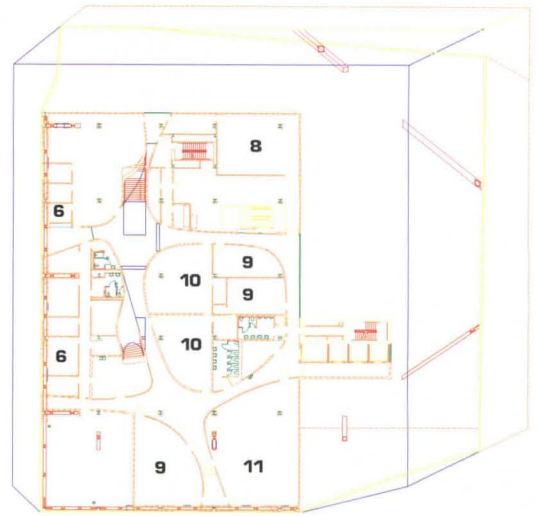
### BEAUTY IN THE EYE OF THE BEHOLDER

But not without reservation. This library is stunning, but it is not pretty. In an essay titled “Beauty,” the contemporary American essayist Scott Russell Sanders writes that we are most likely to perceive something as beautiful “when it gives us a glimpse of the underlying order of things”—thus, our innate attraction to the swirl of a galaxy or the patterning of a leaf. This building’s form tightly and efficiently expresses its internal order, but that information isn’t accessible from the outside. It looks arbitrary.

Inside, a primary accent color, a sulfurous chartreuse that coats the escalator sidings and elevator interiors, seems to have been selected for shock value. The restrooms are painted a rebarbative green and equipped with hand dryers that are as raucous as lawnmowers, both rumored to be ways to discourage loitering. But these are minor rough edges. And while yesterday’s libraries encouraged the quiet and private quest, this one is about community—and is poised to explode with information. ■



level-three plan



level-four plan

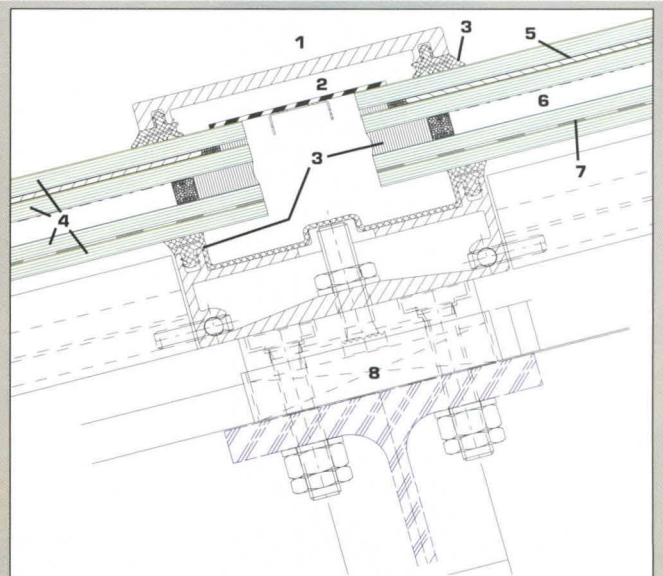
- |                    |                      |                        |
|--------------------|----------------------|------------------------|
| 1 main lobby       | 7 teens              | 13 atrium              |
| 2 "Living Room"    | 8 main computer room | 14 Aviation Collection |
| 3 upper auditorium | 9 conference room    | 15 reading room        |
| 4 fiction          | 10 computer lab      | 16 Seattle Room        |
| 5 café             | 11 multipurpose room |                        |
| 6 office           | 12 book stacks       |                        |

## TRANSPARENCY IN THE DETAILS

The Seattle Central Library looks like a pile of books wrapped in taut netting. Like stretched fabric, the diamond-patterned **steel curtain wall** hugs the building's offset levels and provides lateral structural support, while also meeting the city's seismic code. Rather than lay a curtain-wall frame over the seismic grid, the architectural team decided to integrate the two systems, inseting 4-foot-by-4-foot glass panels into the façade's rhomboid openings.

Detailing the skin was an exercise in complexity because of the structure's unusual shape and multiple planes, of which only eight are vertical. The façade system had to accommodate 28 **corner conditions**, and it required 9,995 panes of glass, of which only 66 percent were regular diamonds. The glazing units sit atop the steel grid secured by aluminum mullions. The sloped diamonds are clamped on all sides, while the vertical diamonds hang from I-shaped members.

The glass itself is just as specialized. The architects wanted to privilege transparency, but they were concerned about heating and cooling a building enclosed almost entirely in glass. Rather than use tinted glass, they chose to clad all of the sloped surfaces with panes containing an **embedded aluminum mesh** that acts like a miniature system of louvers to deflect sunlight and reduce heat gain. **Julia Mandell**

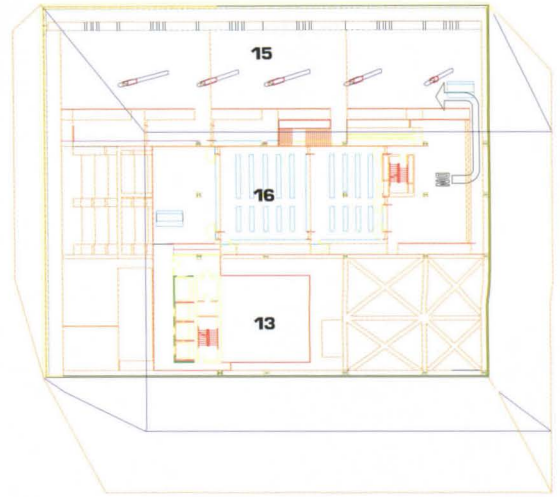


detail at mullion 1"

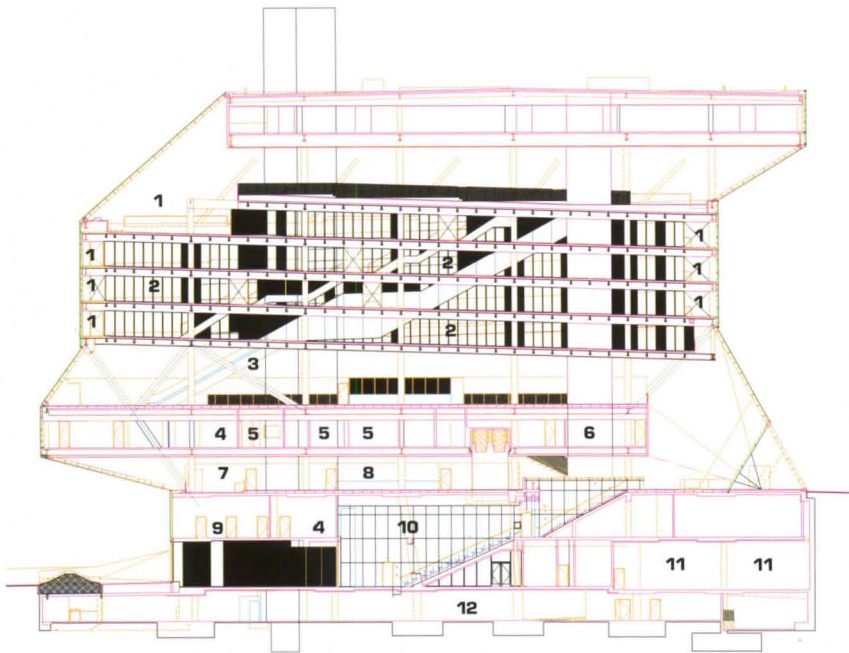
- |  |   |
|--|---|
| 1 aluminum cap   | 5 metal mesh/air space                        |
| 2 reinforced buthlylin tape  | 6 krypton gas                                 |
| 3 silicone gaskets/sealant   | 7 pvb interlayer                              |
| 4 heat-strengthened glass and tempered low-iron glass with low-e coating | 8 aluminum shims and stainless-steel hardware |



level-seven plan



level-ten plan ——— 30' ↑



section looking north ——— 40'

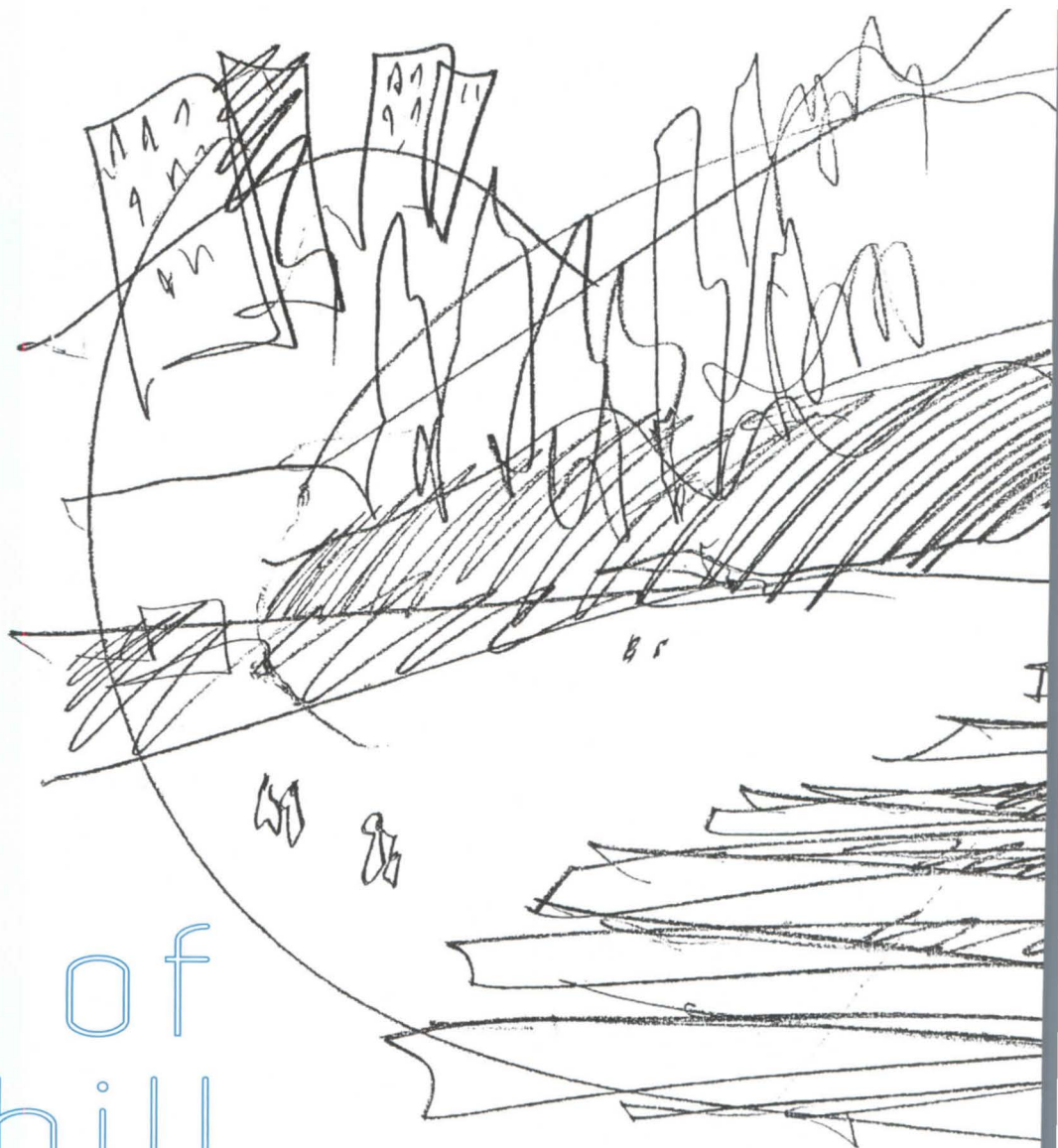
- 1 reading
- 2 stacks
- 3 main reference collection
- 4 multipurpose room
- 5 conference room
- 6 main computer room
- 7 teens
- 8 fiction
- 9 offices
- 10 auditorium
- 11 mechanical
- 12 parking

### Seattle Central Library, Seattle, Washington

**client:** Seattle Public Library **architect:** Office for Metropolitan Architecture/LMN Architects, a Joint Venture—Office for Metropolitan Architecture (OMA), Rotterdam—Rem Koolhaas and Joshua Ramus (design partners); Mark von Hof-Zogrotzki, Natasha Sandmeier, Meghan Corwin, Bjarke Ingels, Carol Patterson (project architects); LMN Architects, Seattle—John Nesholm (partner-in-charge); Sam Miller, Bob Zimmer (project managers); Tim Pfeiffer, Steve DelFraino, Mary Anne Smith, Dave Matthews, Vern Cooley, Pragnesh Parikh (project architects) **interior architect:** OMA/LMN; Inside/Outside **engineers:** Arup, Magnusson Klemencic Associates (structural); Arup (M/E/P); Magnusson Klemencic Associates (civil) **landscape architects:** Inside/Outside; Jones & Jones **lighting designer:** Kugler Tillotson Associates **consultants:** Michael Yantis Associates (acoustics); McGuire Associates (ADA/accessibility); Dewhurst Macfarlane & Partners, Seele (façade); Pielow Fair Associates (life safety) **general contractor and construction manager:** Hoffman Construction **sustainable design certification:** LEED “silver” (pending) **area:** 412,000 square feet **cost:** \$112 million (building); \$43 million (equipment and furnishings)

photographs by Lara Swimmer/Esto

credits and specifications at  
[www.architecturemag.com](http://www.architecturemag.com)



# king of the hill

In a small Portuguese city, Eduardo Souto de Moura transforms a former quarry into a monument to championship soccer. BY CATHY LANG HO | PHOTOGRAPHS BY CHRISTIAN RICHTERS

As the best football (yes, football) teams in Europe battled for their annual championship this year, known as the Euro Cup, the contest for the best of the ten new stadiums built for this year's tournament—an investment of \$780 million for host country, Portugal—was clearly won by Eduardo Souto de Moura's design for Braga, a historic city in the north known for its many cathedrals. With a capacity of 30,000, it's the smallest of the new stadiums. Moreover, it hosted only two of the 31 matches (held June 12 to July 4). But that has not deterred fans—sports-loving counterparts to the religious pilgrims who have long visited this city of 115,000—from making the trek to see the dramatic open-air venue.

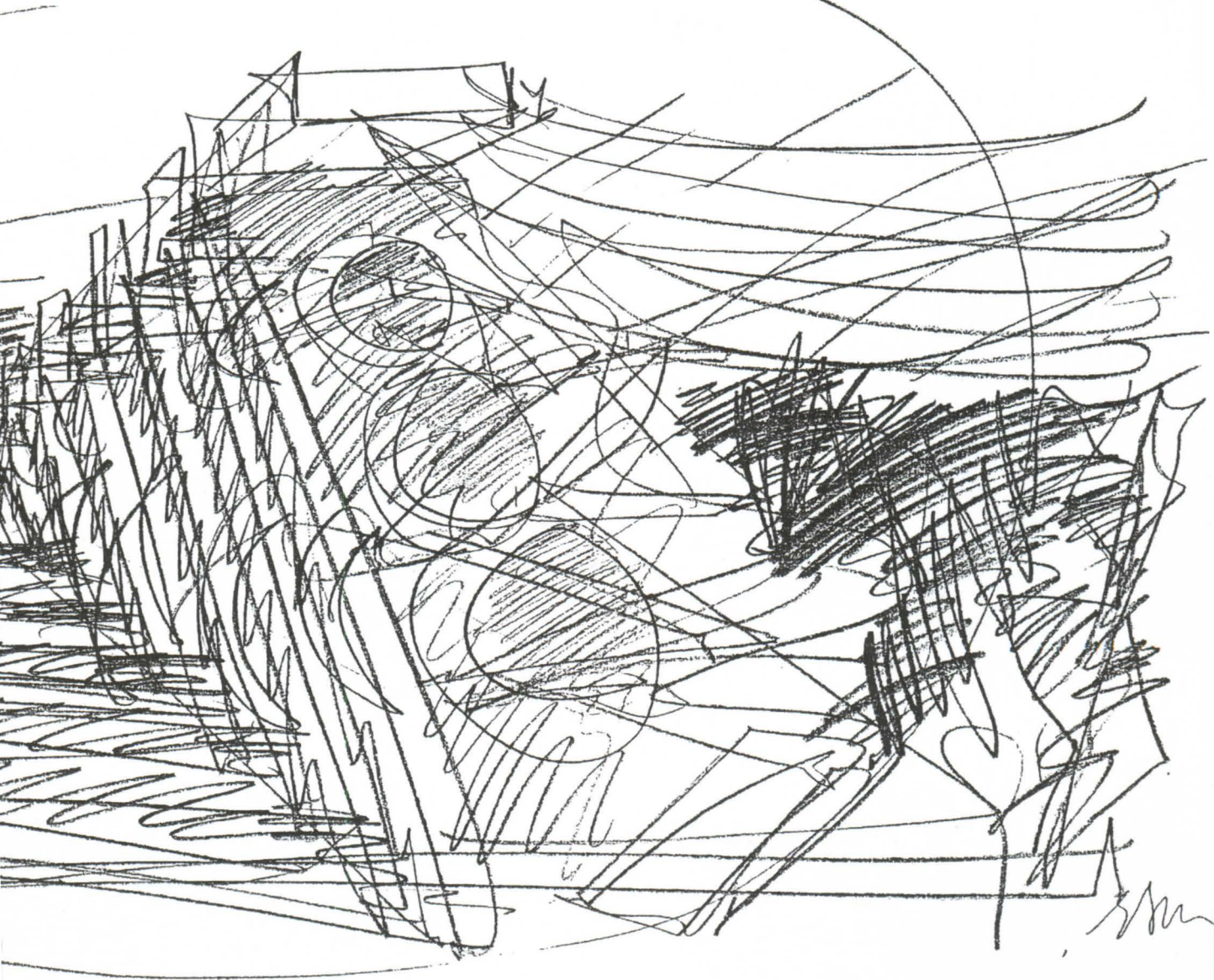
In fact, the stadium has achieved unofficial status as a national landmark. Naturally, the significance of the Euro Cup has factored into the media's love affair with the structure. But it has captured the fancy of the general European

population with its unconventional take on a stadium—a space that is as civically important in soccer-loving countries as plazas and boulevards. The structure departs from the typical closed-bowl approach with its configuration of two parallel stands and gaping ends that reveal the jagged face of Monte Cristo in one direction and a view of the city center in the other.

## TOPOGRAPHIC ENCLOSURE

The risk of opening a stadium in this way is the loss of a contained atmosphere, which is crucial to the experience of a game, but the mountainside serves as a fully enclosing third wall. The best view of a soccer match, reasoned Souto de Moura rightly, is from its long side, especially today as television has shaped Europeans' conception of the game. Meanwhile, soccer enthusiasts have enjoyed joking about





the consequences of misfired shots on goal deflecting on the mountain or sailing into the valley below.

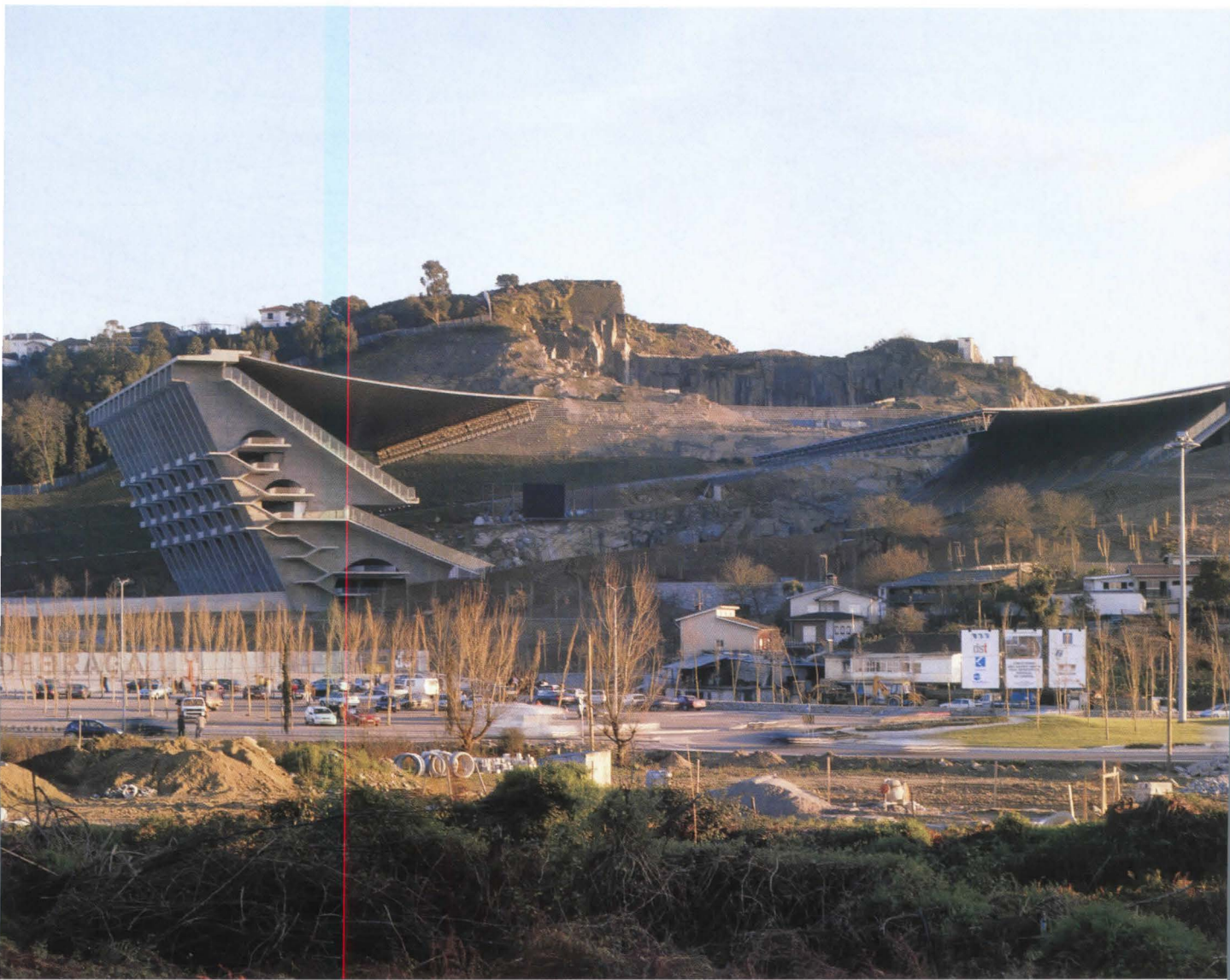
The stadium's siting is not to be underestimated as a factor in its drama and visibility. The architect had three locations to choose from, and he opted for a former granite quarry, finding the cuts in the landscape appealing. His first "idea was that filling the hole with the stadium would be perfect," explains Joana Corrêa, an architect with the firm, although a million additional cubic feet of granite was blasted out to nestle the structure into the mountain. The location also fulfilled Souto de Moura's desire to set the stadium apart from the city. It sits at the highest point in the River Cávado Valley, defining its own place, and consequently, putting Braga on the map.

#### **CANTILEVERED CONCRETE**

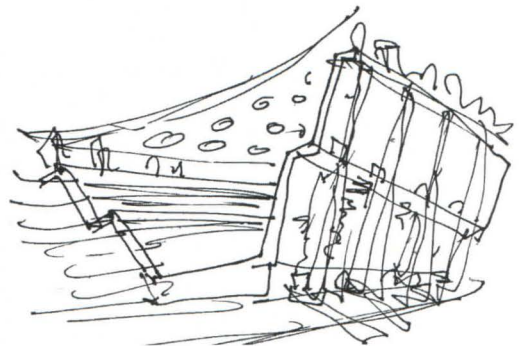
The project is certainly the most high profile in Souto de Moura's career and has become an icon of the Euro Cup, much as the Tylon and Perisphere came to symbolize the 1939 World's Fair in New York City, or the swooping-roofed

Portuguese pavilion by Álvaro Siza became shorthand for the 1992 Lisbon Expo. In fact, the pavilion, which features a thin curved roof of concrete reinforced by imbedded stainless-steel cables, served as inspiration for Souto de Moura, a friend and protégé of Siza. Among Braga's most striking and technically challenging features are the flying concrete roofs that cantilever over the seats, stopping short of the field, which is left exposed to the sun. In a feat of engineering and construction, high-strength steel cables strung between the concrete stands support the canopies. Souto de Moura also cites Inca bridges in Peru—lengths of rope layered with wooden slats—as a reference for this construction. Corrêa argues that, "The materials are different but the idea is the same."

After the tournament, the stadium will be the home field for Sporting Braga, a first-division team that might just gain more fans as a result of its new facility. No country has gone to such great lengths to stage the Euro Cup, but Portugal is hoping that its investment will pay off by generating traffic, à la Bilbao, to some of its lesser-known cities. In the case of Braga, the strategy is already working. ■

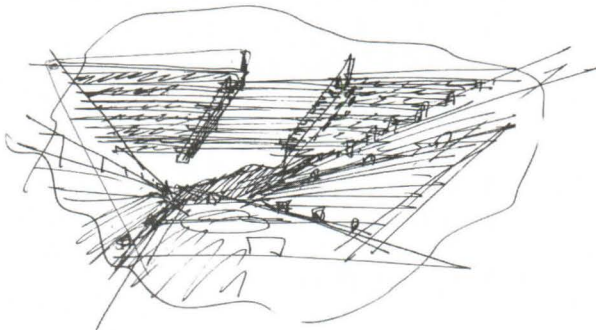


Sited in the Dume Sports Park on the northern slope of Monte Cristo, Braga Stadium was designed for the 2004 Euro Cup, but its long-term role is to serve as an anchor for the city's expansion northward (above and left).



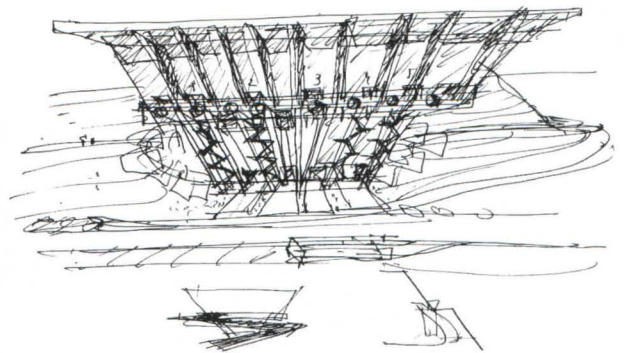


High-strength steel cables support the cantilevered reinforced concrete roofs that shelter the stands on either side of the field, framing dramatic views of the city and the mountain (above and right).



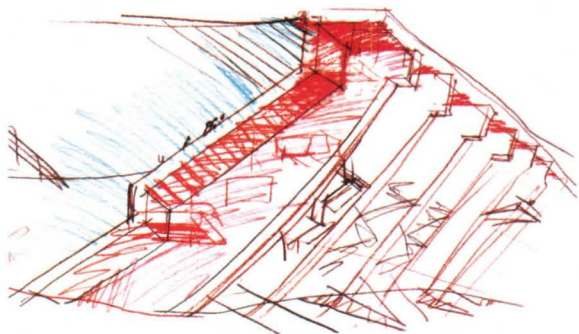


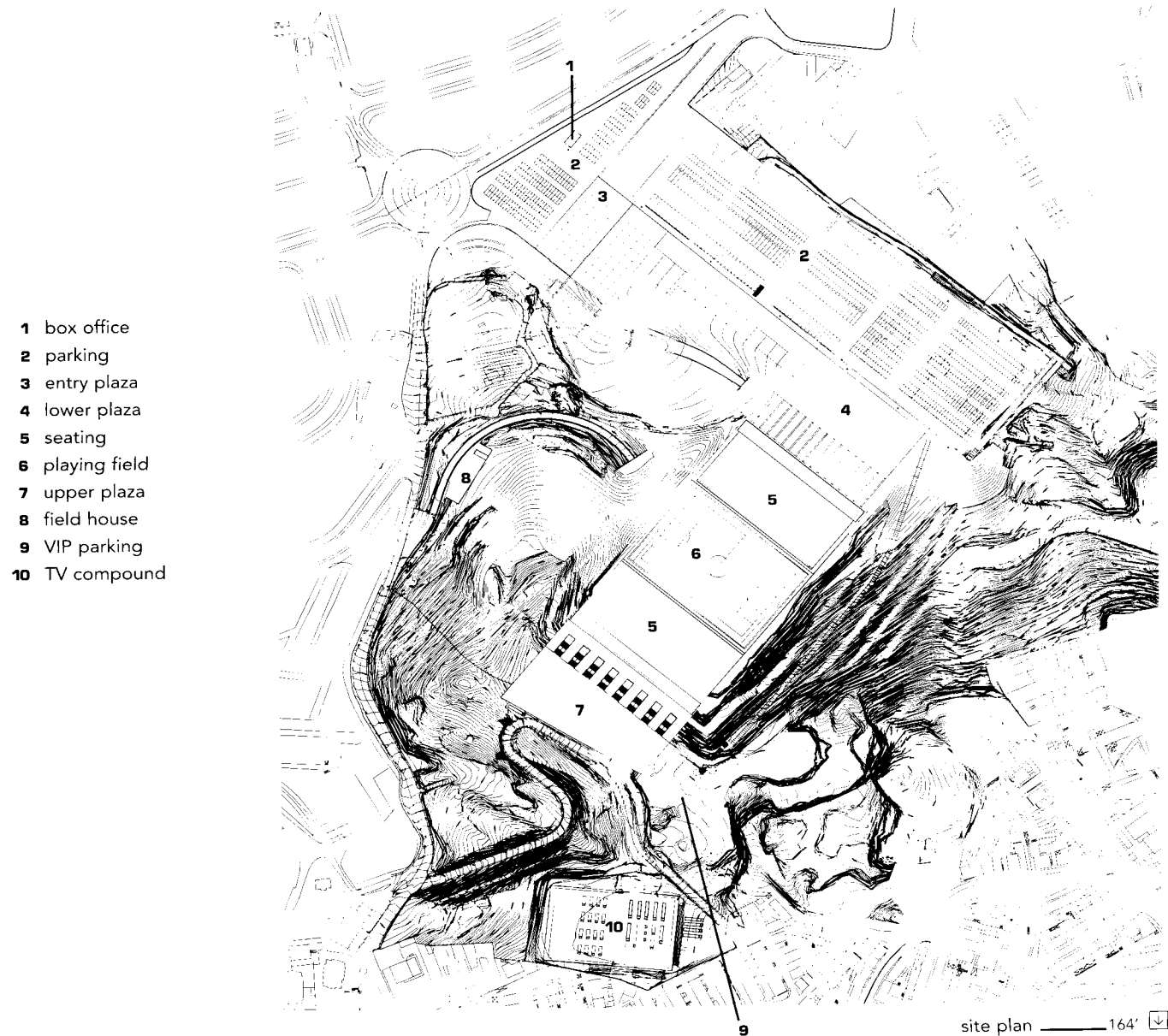
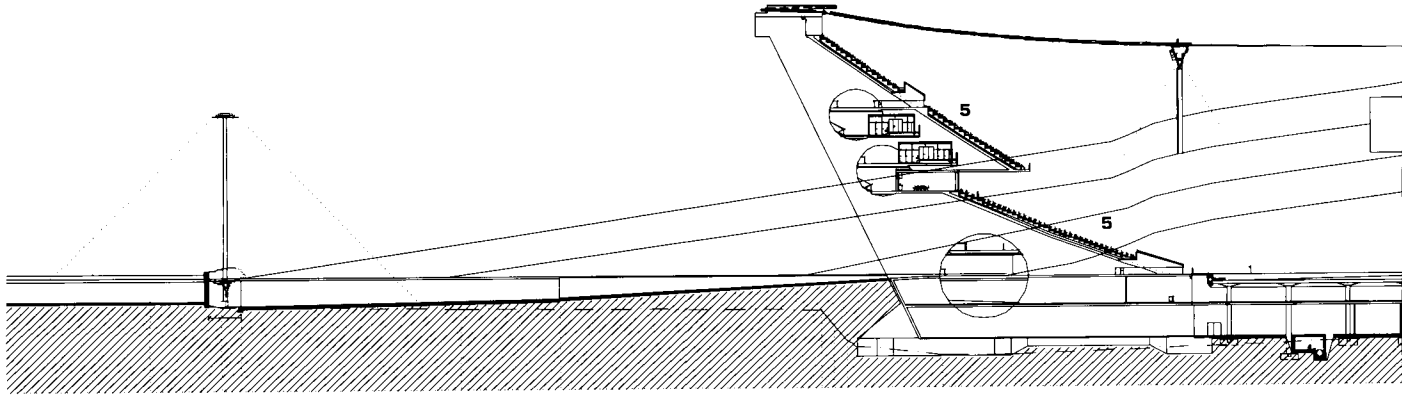
Seemingly carved out of a solid block, the cavernous spaces beneath the stands are rendered in exposed reinforced concrete with guardrails to direct crowds (above and left).



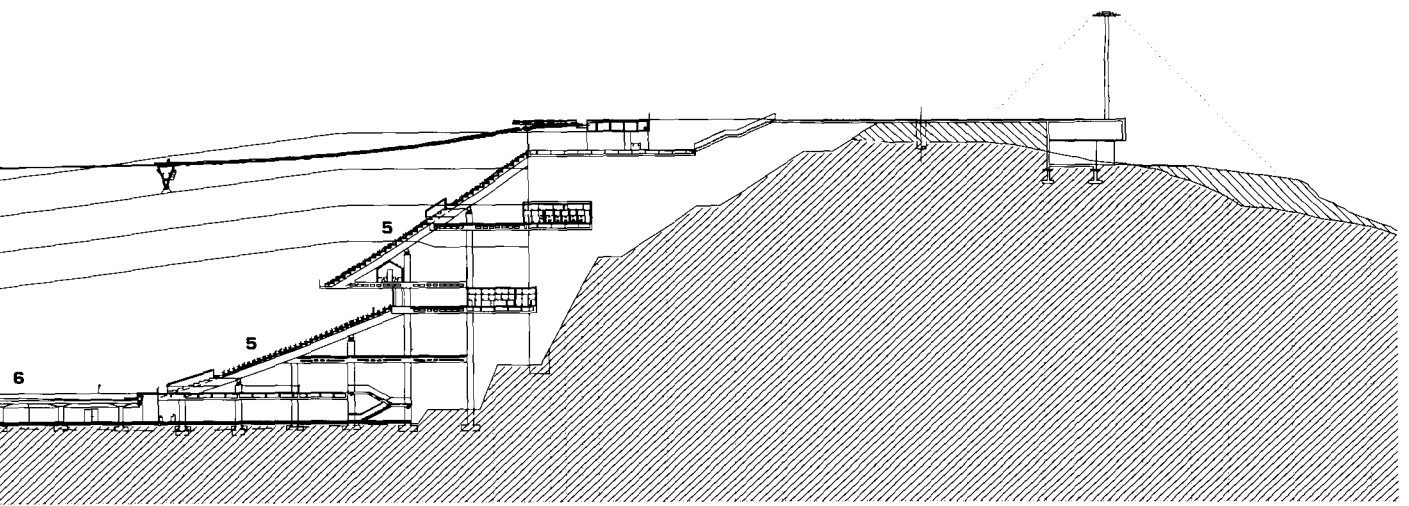


Unlike most modern-day stadiums, Souto de Moura's design opens the field to the surrounding landscape, a sense of connection reinforced by corridors and open-air landings (above and right).

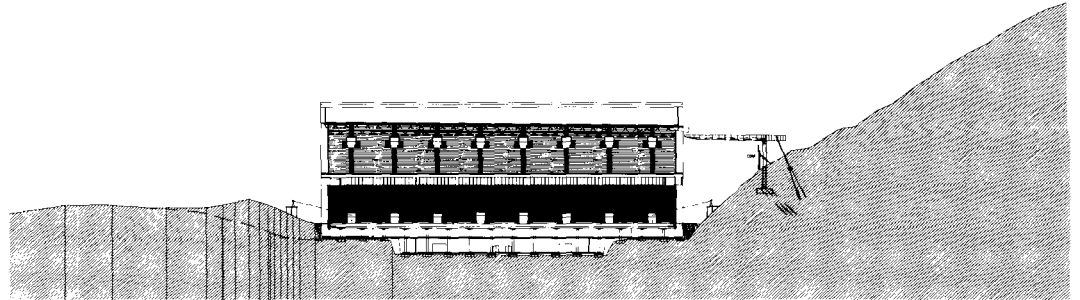




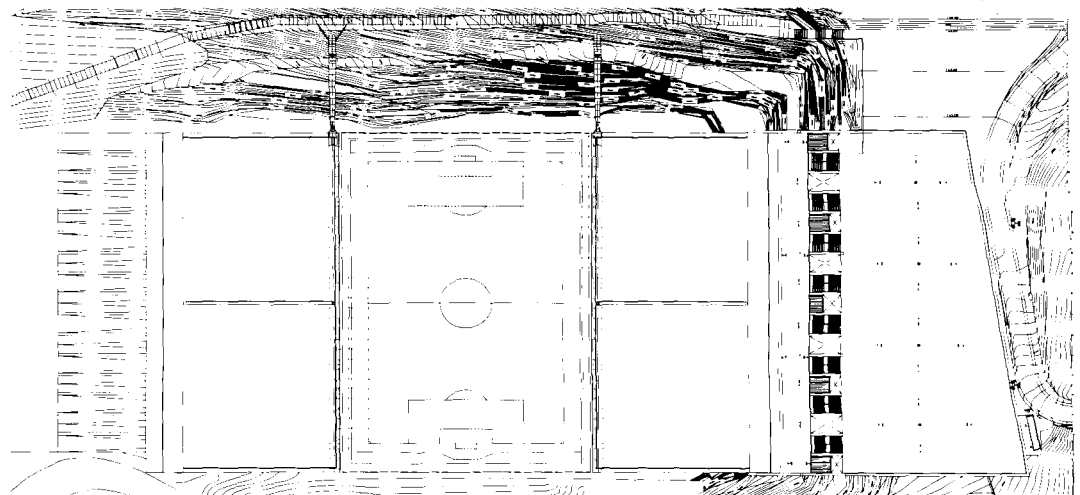
- 1 box office
- 2 parking
- 3 entry plaza
- 4 lower plaza
- 5 seating
- 6 playing field
- 7 upper plaza
- 8 field house
- 9 VIP parking
- 10 TV compound



north-south section ——— 40'



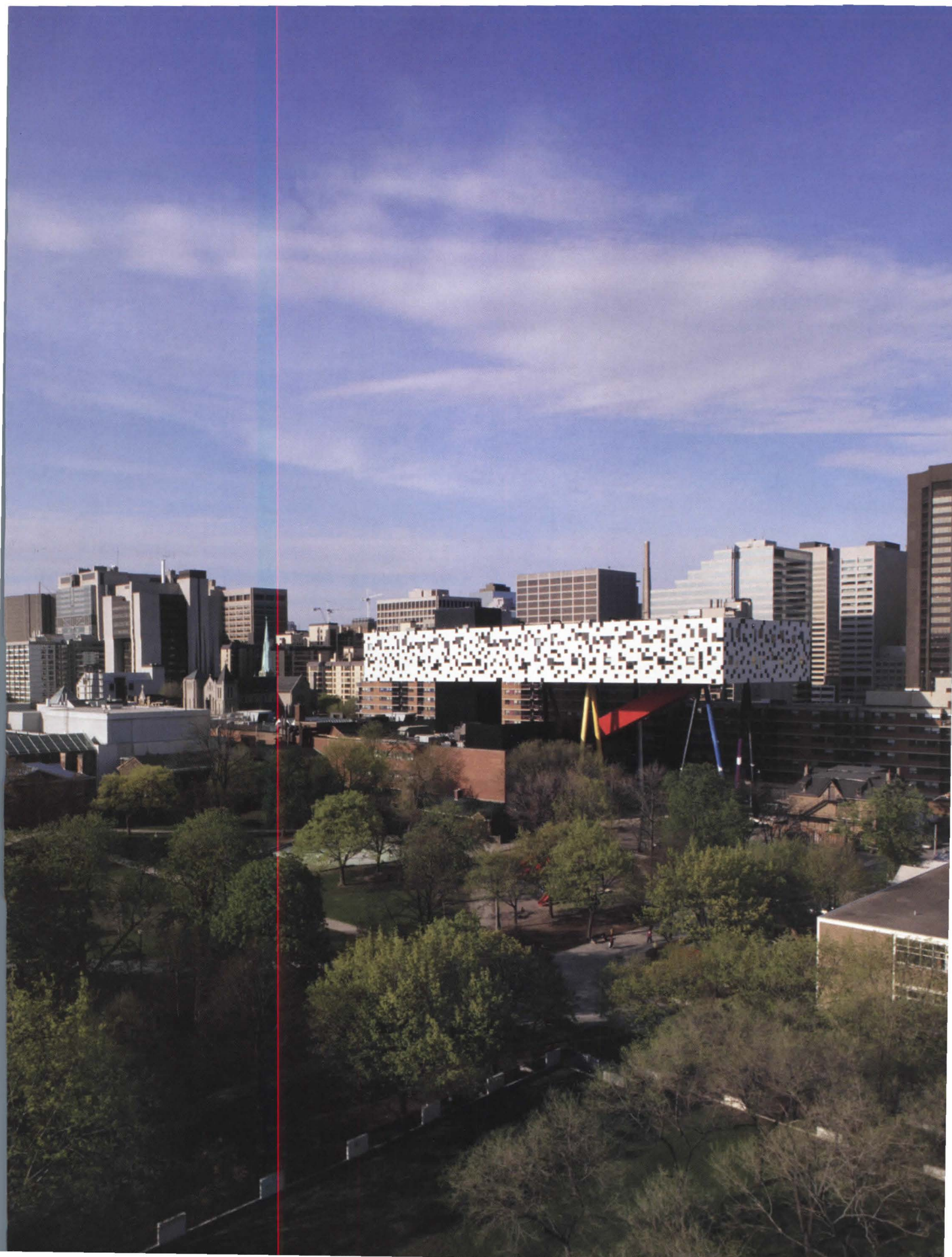
section through stands



roof plan ——— 82' ↙

## Braga Stadium, Braga, Portugal

**client:** Câmara Municipal de Braga **architect:** Souto de Moura Arquitectos, Oporto, Portugal—Eduardo Souto de Moura (principal); Carlo Nozza, Ricardo Meri, Enrique Penichet, Atsushi Hoshina, Diego Setien, Carmo Correia, Luisa Rosas (project team) **engineers:** AFA Associados (structural); Rodrigues Gomes & Associados (M/E) **consultants:** Arup (structure); Daniel Monteiro (landscape) **general contractor:** Soares da Costa Associates **area:** 444,000 square feet **cost:** \$101.2 million





# SKY BOX

HIGH ABOVE THE STREETS OF TORONTO, FORM COMPETES WITH FUNCTION IN AN ARTS SCHOOL ADDITION.  
BY BETH KAPUSTA | PHOTOGRAPHS BY FLOTO + WARNER

If the sole purpose of architecture were to inspire people to look up, British architect Will Alsop would have succeeded admirably with his recent addition to Toronto's Ontario College of Art & Design (OCAD). From an external perspective, the building's novelty is undeniable: a rare and formally adventurous horizontal box on stilts, a forceful artistic gesture literally going against the grain of Toronto's conservative and largely vertical skyline.

The two-level, horizontal slab poised on giant crayon-colored legs—the first completed project in a spate of new works in the city by prominent designers who reside elsewhere—is a lightning rod for public debate on architecture: loved for its bombast, reviled for its egocentrism in fairly equal measure. Reaction from local critics to the Sharp Centre for Design has ranged from “Canada's version of the Pompidou Centre,” penned by *Globe and Mail* architecture critic Lisa Rochon, to Mark Kingwell's “kooky” in *Toronto Life* magazine and, more candidly, in the OCAD student newsletter, “a twenty-first-century mad scientist's lair.”

## WHY SKY-HIGH?

First and foremost, the 80,000-square-foot addition poised on twelve steel columns some 85 feet above McCaul Street serves as a billboard for the school. Peter Caldwell, executive vice president of OCAD, describes it as “an icon of what aspires to be an internationally relevant art and design institution.” He argues that the building, designed by Alsop with local firm Robbie Young + Wright, is also a new “landmark for Toronto.” But by his own admission, “the drama is truly on the outside” with the inside a very conventional building, largely due to budget restrictions.

The childlike qualities of the volume—a white aluminum-clad box peppered with black squares and connected by a bright red tube to the faded modernist brick structure that is the existing college—are an unmistakable proposition of a building as a piece of art.

One of the key rationales for going sky-high (a conceit Alsop has used with great success in projects such as the 2000 Peckham Library in England) was to create a connection to Grange Park, which has thus far been thwarted by an external source: A strip of land owned by the neighboring Art Gallery of Ontario remains behind a chain-link-fenced parking area, frustrating goals of the city, local residents, and the school. While the stilts strategy maintains views to the park from nearby buildings, the idea of a fluid extension of the college's outdoor event space flowing into the park has yet to materialize.

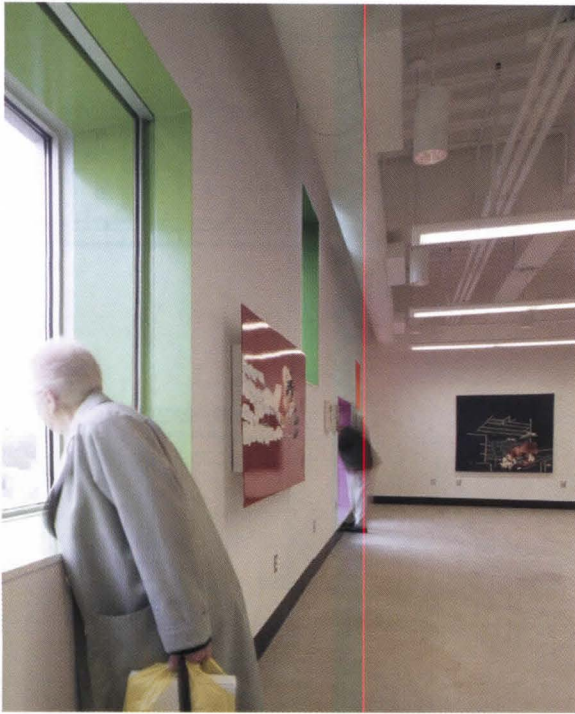
The novelty of OCAD's overarching sculptural idea fades quickly as the building struggles—and ultimately fails—to resolve itself on the interior. Inside the addition, there is virtually no sense of being in a floating volume high above the city; it feels like being in any old office tower, albeit with some colorfully framed, randomly placed windows. Any sense of procession is denied, because access to the “tabletop,” as the designers call the addition, is through a spiritless bank of elevators. (The red tube connecting old to new is solely for emergency egress). Worse, the exposed mechanical and electrical systems, concrete floors, and ill-proportioned classrooms echo the least successful traits of the existing buildings.

## RATIONALIZING THE GROUND PLANE

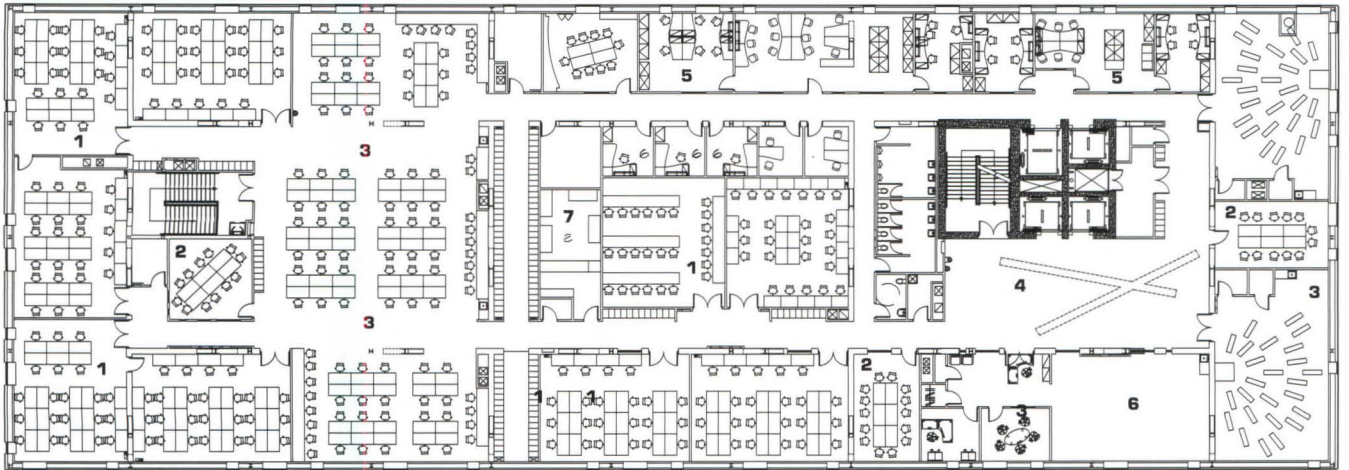
The main attempt to pull together the college's various disciplines, a requirement of the design brief, lies in the renovation of the old structure. Most significant is the rationalization of the entry sequence so that everyone enters through a single lobby; the north and south sides of the existing college are now linked by a second-floor bridge, vastly improving the previous labyrinthine condition and cramped entry sequence. However, the new entrance is pinched by one of the exterior structural columns, and the lobby is uninspiring. Perhaps saddest of all, there is no heart to the revamped college; the generic quality of new exhibition areas behind the monolithic concrete elevator bank has only the most superficial embellishments; pink X-shaped recesses in the ceiling and metal balustrades add little to the composition.

And so the city of Toronto, keen to make itself more visible and more lovable through the instant creation of high-profile architecture, gets its first look at the trade-offs of attracting “stars”—a tactic it feels can afford an advantage when it comes time to raise funds for these projects. While Canadian architects have been silent on the issue, Toronto's desire to go big on a number of prominent edifices—the overhaul of the Art Gallery of Ontario by Frank Gehry and the new Royal Ontario Museum by Daniel Libeskind, among others—largely dismisses an entire generation of local practitioners whose considerable talents and deeper understanding of the city remain untapped, even as the city seeks to spotlight its assets on the international stage.

Toronto-based architecture writer Beth Kapusta is coauthor of *Yolles: A Canadian Engineering Legacy*.



Corrugated aluminum wraps the sides and underbelly of the addition, emphasizing the singularity of the rectangular volume (facing page). Bright colors accent interior spaces (above left and right).



- 1 classroom
- 2 critique area
- 3 studio
- 4 exhibition
- 5 office
- 6 research laboratory
- 7 media output

level-six plan — 25' ↘

### Ontario College of Art & Design Renovation and Addition, Toronto

**client:** Ontario College of Art & Design **architect:** Alsop Architects in joint venture with Robbie Young + Wright Architects; Alsop Architects, London—Will Alsop, Jonathan Leah, Isabel Brebbia, Oliver Blumschein, Christian Harrup, Anthony Murray, Stephen Swain, Lilli Pischill, Sven Steiner (project team); Robbie Young + Wright Architects, Toronto—Iman Ajlani, Sean Boucher, Vladimir Carelli, Brody Carrick, Paul Dimartino, Sarah Elliott, Andra Hayward, Eric Johnson, Chris Kerr-Strefford, Yew Thong Leong, Lisa Lejevaja, Ray Makimoto, Cathy Misiasek, Ricardo Maturana, Esther Ortmann, Suresh Patel, Jacek Pryzgodzki, Zubair Qureshi, Caroline Robbie-Montgomery, Ronny Sepulveda, Karl Wong, Greg Woods, Jamie Wright (project team) **engineers:** Carruthers & Wallace (structural); MCW Consultants (M/E/P); Cansult (civil) **consultants:** Hine Reichard Tomlin (fire and building codes); YWLA (landscape); Stephen Pollard (lighting); Hanscomb (cost) **construction manager:** PHA Project Management **general contractor:** PCL Constructors Canada **area:** 80,000 square feet (addition); 165,000 square feet (renovation) **cost:** \$32 million



## Specifications

**concrete:** JDR Construction **masonry:** Clifford Restoration **structural steel:** Walters **intumescent paint:** Carboline **curtain wall:** Global Architectural Metals **corrugated aluminum cladding:** Flynn Canada **fiber-reinforced-cement panel system:** Eternit **built-up modified-bitumen roofing:** Baker **laminated glazing:** Prelco **colored window film:** Vanceva **perforated window film:** 3M **metal doors:** Newport **aluminum doors:** Kawneer **locksets:** Schlage **hinges:** Stanley **closers:** LCN **exit devices:** Von Duprin **door pulls:** CBH **perforated vinyl acoustic panels:** Decoustics **paints and stains:** ICI Dulux, Benjamin Moore, A.R. Monteith **concrete flooring:** L.M. Scofield, Duochem, Tremco **carpet:** Interface **furnishings:** General Storage Systems **downlights:** Metalum, Cooper **specialty lighting:** Encapsulite

# LIGHT UP THE MERCH

Custom fixtures breathe light into a futuristic retail setting. by Paul Gregory

For Brazilian fashion designer Carlos Miele's first store outside of his native country, architects Hani Rashid and Lise Anne Couture of New York City-based Asymptote designed an otherworldly, flowing landscape with a subdued Arctic palette under a drooping **heat-formed plastic** ceiling. Located in the heart of the ultratrendy meatpacking district in New York City, the lighting installation was created to complement this stunning tribute to Miele's eccentric designs.

As customers approach the store, they first see wall planes infused with a crisp, white light from **concealed T8 fluorescent lamps** behind frosted acrylic diffusers in the storefront display and in the back changing area. The glass façade allows prospective clientele to see the entire store when passing by on the street; the bright, backlit walls in the rear draw customers into and through the space.

One of the major challenges of the project was lighting the perimeter walls in an unassuming way to accentuate racks of hanging garments. The solution: **glowing shelves** that appear to be hovering in the air. The curved wall behind the rack fixture is uplit with T8 lamps to express the sweeping, vaulted ceiling above, while the wall below the shelf (and behind the clothing) is lit, again with concealed strips of T8s, so that it sets the clothes apart from the wall. Warm incandescent accents—actually, **MR16 halogen lamps**—are aimed at the front of the merchandise to bring out their color and texture.

The most unique lighting elements within the store are the **neon light rings** built directly into the epoxy floor (see detail, page 63). These glowing rings highlight hanging mannequins that appear to be floating in air. The clothes on display are uplighted by four **MR16 halogen lamps** spread among four neon pieces set at equal distances within each recessed ring. From above, single MR16 lamps are hidden in niches to highlight each mannequin, reinforcing the overall image of the hovering figures, which



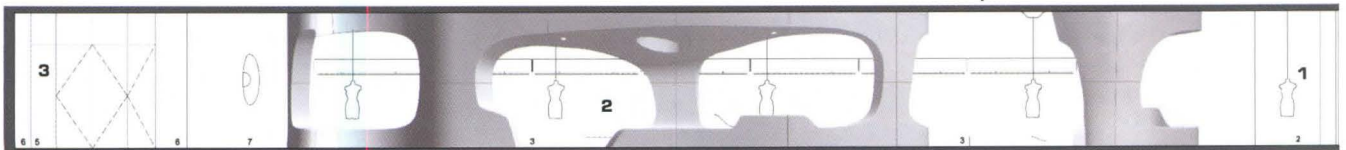
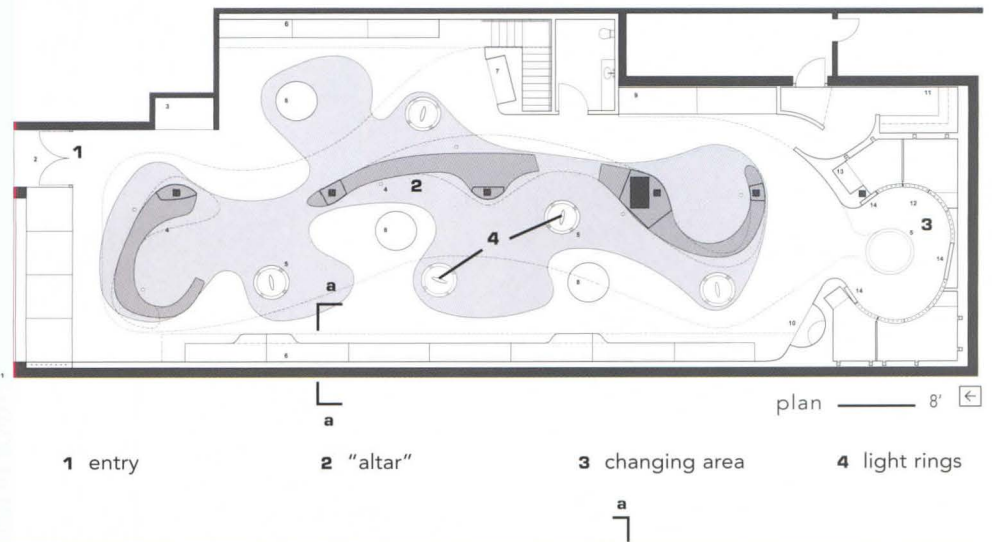
The heat-formed plastic interior of the Carlos Miele store is accented by illuminated floor rings and custom clothing racks with integral light fixtures.

seem to be pulling on the otherwise flat, stretch-fabric ceiling.

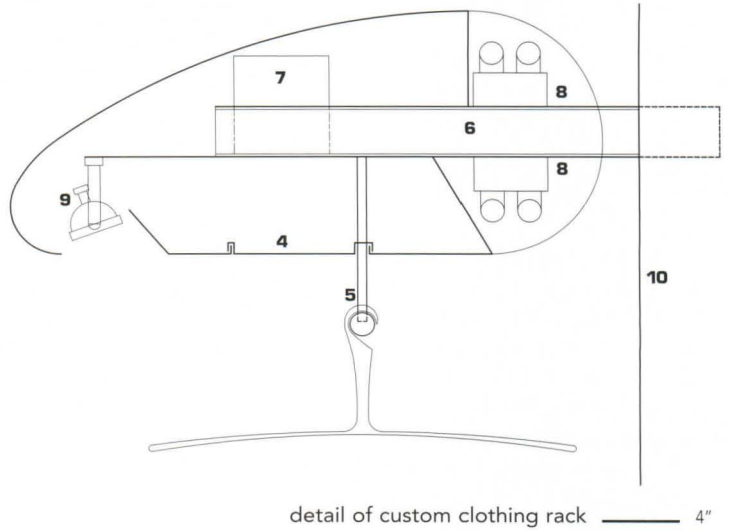
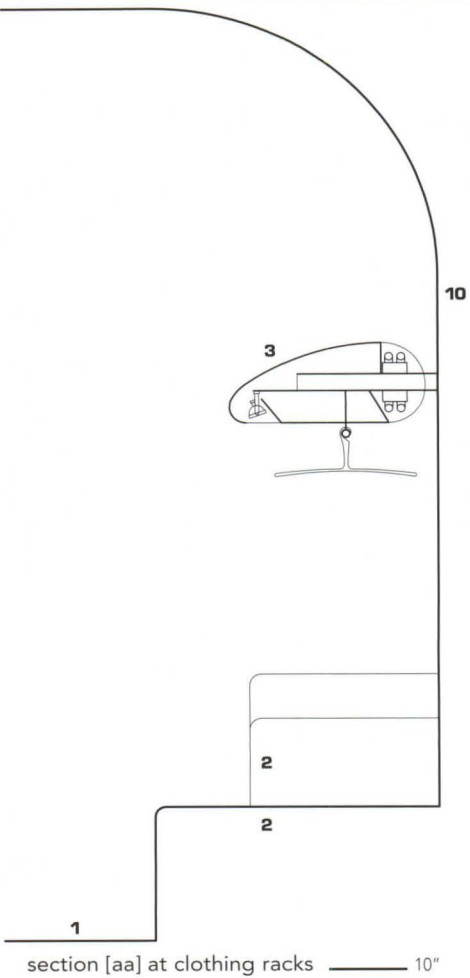
Wrapping around all the lighting elements is a sensuous "altar," as the architects call it, paying respect to Miele's striking designs. The unique lighting elements come together to create a fun—and electrifying—shopping environment.

credits and specifications at [www.architecturemag.com](http://www.architecturemag.com)

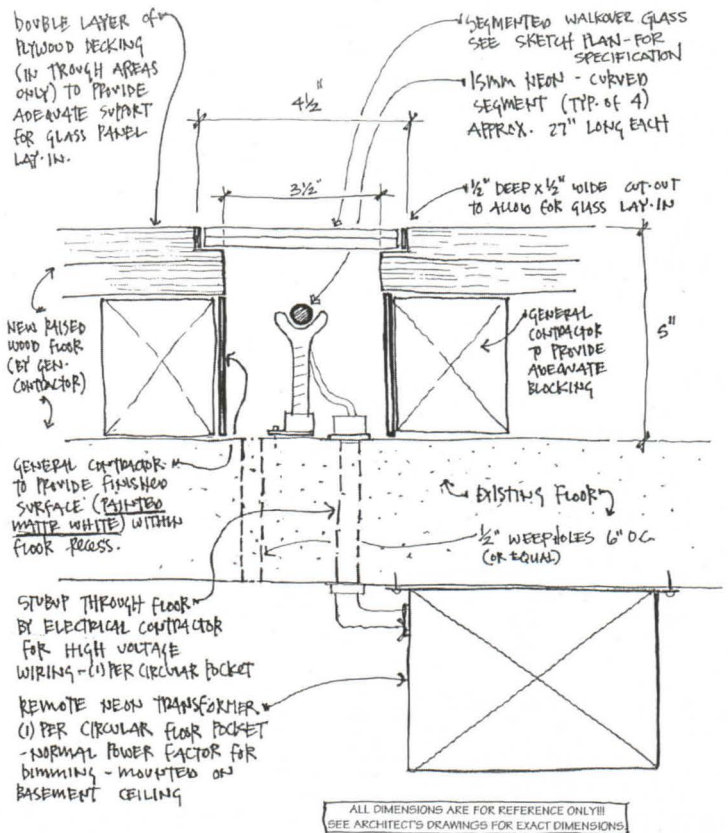
**Paul Gregory is the founder and president of New York City-based Focus Lighting, where he specializes in retail and hospitality projects.**



- 1 epoxy floor
- 2 custom painted millwork
- 3 roll-formed metal shell
- 4 access panel
- 5 custom stainless-steel rod/hanging bar and hangers
- 6 steel tube and plate
- 7 low-voltage transformer
- 8 T8 fluorescent strip lights
- 9 low-voltage track light
- 10 level-5 gypsum-board finish



Concealed low-voltage MR16 lamps and common T8 fluorescent strip fixtures help lend an ethereal glow to the boutique's biomorphic installation. To illuminate the hanging mannequins, a glass-topped ring combining neon and MR16 fixtures is built into the floor at five locations; a recessed MR16 fixture above highlights each figure and obscures its means of support. Design studies (below) offered early ideas about fabrication and construction.



ALL DIMENSIONS ARE FOR REFERENCE ONLY!!!  
SEE ARCHITECT'S DRAWINGS FOR EXACT DIMENSIONS

1 SECTION @ NEON-CIRCULAR FLOOR POCKET  
1:32 SCALE: HALF SIZE

FOCUS LIGHTING, INC.



design concept studies

## THE FINE PRINT FOR CURTAIN WALL

Façade specialists like performance-based specs—if they're crafted with care.

by C.C. Sullivan

The use of performance-based specifications is commonplace for designing curtain walls and other exterior systems, yet the practice has caused some concern—and some noteworthy failures—in high-profile projects.

"Performance specifications often don't go far enough," contends Thomas A. Schwartz, a building technology specialist and president of Simpson Gumpertz & Heger in Waltham, Massachusetts. "They often rely on **short-term tests** that can't replicate long-term exposure and don't verify long-term performance."

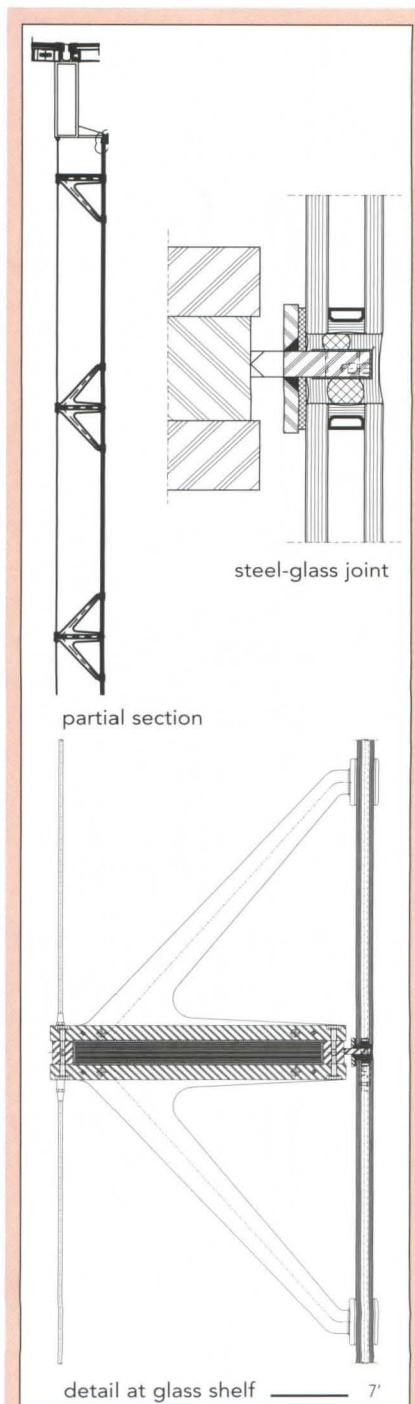
Complicating matters is the widespread reliance on large, **vertically integrated suppliers** of curtain wall who offer everything from system engineering to field erection. Many of the manufacturers, notably several from Europe (see "The Bleeding Edge," page 65), offer to relieve the general contractor of responsibility for the curtain-wall work, raising contractual and warranty questions.

Most experts in envelope design encourage architects to work closely



Innovating with curtain walls has long been the norm in Europe, where designers work free from the liability and first-cost concerns that constrain U.S. projects. A recent example is Chicago-based Murphy/Jahn's scheme for the Bayer headquarters building in Leverkusen, Germany: Its highly transparent double façades with integral solar shading are naturally ventilated. To execute his concept flawlessly, Helmut Jahn collaborated in early phases with structural and mechanical engineers, as well as the façade contractor, Seele.

with these specialty contractors, however, to assure a superior design. "We leave a certain part of the performance specs to contractors," says Bruce Nichols, a partner with the New York City-based façade consultancy Front.



The glass-and-steel curtain wall includes a twin-shell system (not shown) and a cable-stayed, point-supported assembly that encloses an entry pavilion (top left). Glass shelves intersect steel braces (above) at siliconed steel-plate joints (top right).

"We're open to suggestions, and we learn from them." Plus, he adds, most of the ultimate responsibility falls to the contractors, regardless of the supplier's role.

#### WHAT'S "PERFORMANCE" ANYWAY?

And regardless of delivery strategy, the safety and durability of the curtain wall hinges on well-defined design priorities. "The issue really hangs up on what 'performance' means," says New York City-based consultant Gordon H. Smith. "Some think it's just about air and water penetration, but another aspect is visual performance: Does it deliver an aesthetically pleasing picture? It must present the **visual effect** the architect intends."

In many cutting-edge designs, such visual criteria are defined with rigorous tolerances and detailed descriptions. Yoshio Taniguchi's design for a taut yet airy glass-and-stone curtain wall at New York City's Museum of Modern Art, for example, calls for 3/8-inch joints between panels—and 1/32-inch tolerances for extruded aluminum members. To ensure conformity, the project team paid their European subcontractor to perform quality checks of stateside fabricators.

But it's not only the latest, most technologically advanced systems that challenge the efficacy of performance specs. Even curtain-wall products with great track records carry the same performance and liability concerns, notes Schwartz, who recommends a prudent mix of performance and **prescriptive specs**.

"If you're going to rely on track record, you have to be sure your track record is for a system that's analogous to the one you're developing, in all

respects," Schwartz explains, pointing to the well-known case of I.M. Pei's John Hancock Tower (1975) in Boston, which featured a dual-pane glazing system using lead-tape spacers to separate the panes—the premier product of its day. Yet Pei's novel design used larger-than-typical glass panels with special coatings that were relatively new at the time; both features increased thermal loads, causing more differential movement and stress than anticipated. During construction in 1973, a windstorm caused hundreds of sudden fractures. As Schwartz points out, the "**change in use**" of the decades-old curtain wall—in this case, larger sizes and novel glazing—rendered its track record moot.

#### LIMITATIONS OF TRACK RECORD

Experts such as Nichols see this issue as a rationale for innovating rather than using an off-the-shelf solution. "People feel a certain safety behind the history of some designs, but it's really no different with something new," says Nichol. "The main stumbling block is that if it's a system that isn't recognized, it may require testing, and that's a cost."

"Track record should still be the guiding light," counters Schwartz, arguing for a more conservative mantra. "Otherwise you're too dependent on manufacturer claims and **short-term tests** that don't tell you about long-term performance."

It's that reliance on manufacturer claims, the consultants agree, that often dilutes the effectiveness of performance specs. "It is the designer's job to go beyond what the manufacturer tells you," Schwartz concludes. "It is a big  more information at [www.architecturemag.com](http://www.architecturemag.com) burden."

### PRESCRIPTIVE SPECS: JUST WHAT THE FAÇADE DOCTOR ORDERED

To bolster curtain-wall designs, many architects and consultants refer to prescriptive specifications in addition to the performance-based language in their construction documents. The library for glass-and-metal assemblies is especially deep; from the canon of curtain wall, the following titles are indispensable:

↳ *Glazing Manual*, by the Glass Association of North America, ([www.glasswebsite.com](http://www.glasswebsite.com)). The 2004 update was released in April.

↳ *Standard Guide for Evaluation of Exterior Building Wall Materials, Products, and Systems*, better known as standard E1825 from ASTM ([www.astm.org](http://www.astm.org)). This primer is ideal for architects selecting components they're not familiar with.

↳ *Falling Glass*, by Patrick Loughran (Birkhauser, 2003). The architect-engineer author catalogues façade failure modes and offers strategies to avoid them.

Armed with prescriptive specs, envelope designers can better address not only basic modes of failure—water and air infiltration, excessive deflection, delamination, glass fracture, and noise or vibration caused by thermal movement—but can anticipate material deterioration beyond normal weathering. Such circumstances can prove fatal: A curtain wall can meet code-prescribed design loads, but jurisdictions rarely factor wear and tear into their minimum requirements for façade designs. **CCS**

#### The Bleeding Edge

##### Permasteelisa Cladding Technologies

[www.permasteelisausa.com](http://www.permasteelisausa.com)

**Gartner**—now part of Permasteelisa  
[www.josef-gartner.de](http://www.josef-gartner.de)

**Mero** [www.mero.us](http://www.mero.us)

**TriPyramid Structures**  
[www.tripyramid.com](http://www.tripyramid.com)

#### Standard Bearers

**Enclos**—formerly Harmon  
[www.enclos.com](http://www.enclos.com)

**Glassalum International**  
[www.glassalum.com](http://www.glassalum.com)

**Benson**  
[www.bensonglobal.com](http://www.bensonglobal.com)

**Sota Glazing** [www.sotawall.com](http://www.sotawall.com)  
**Wausau** [www.wassauwindow.com](http://www.wassauwindow.com)

#### Up and Coming

**Seele**—(pronounced ZAY-lay)  
[www.seele-online.com](http://www.seele-online.com)

**UAD Group** [www.uadgroup.com](http://www.uadgroup.com)

**Depp Glass** [www.deppglass.com](http://www.deppglass.com)

**Antamex** [www.antamex.com](http://www.antamex.com)

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## RULES OF THE GAMES

Interactive technology isn't just for video games anymore. It could change the way we design and present.

by Julia Mandell

When asked about their experience with video games, most architects would probably talk about their children's PlayStations ([www.playstation.com](http://www.playstation.com))—or their own depending on their age. But how many would talk about the "video games" they are developing to showcase their work? Calling them games might be less than accurate, but designers and computer engineers working in rendering and visualization technologies are using video-game-production software to create **interactive presentation environments** for architects, equipment manufacturers, and real estate developers.

Maraizon International ([www.maraizon.com](http://www.maraizon.com)), an architectural graphics company in Santa Rosa, California, has created a number of interactive presentations for clients, most for development projects. "We're working on a simulation of a high-rise in China that includes a tour of a building where you move along the outside, choose an entrance, and examine features within," says John Leo, Maraizon's creative director. "It becomes a marketing tool for the developer."

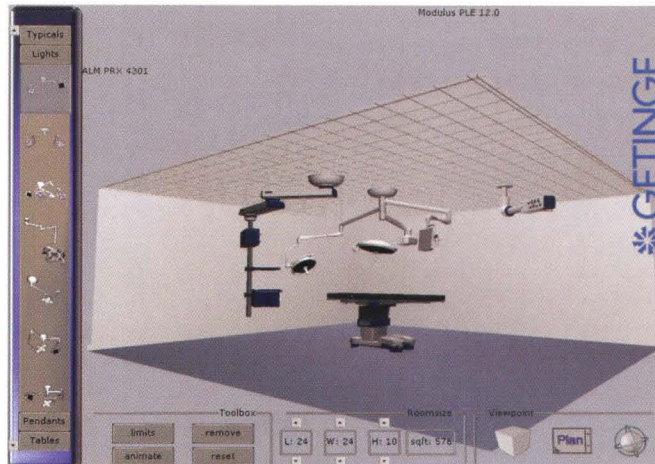
The difference between such a simulation and the architectural renderings that have been around for years now is the amount of control users have over the virtual environment. Rather than a fly-through, portraying the space as if captured on film by a roving camera, simulations using **gaming engines**—as these tools are called—create a closer simulacrum of reality, allowing the user to move about freely, open doors, touch objects, and interact with the environment at will.

### DIGITAL INTERACTIONS

To create an interactive environment, gaming engines such as Virtools ([www.virttools.com](http://www.virttools.com)) and Viewpoint ([www.viewpoint.com](http://www.viewpoint.com)) apply interactive qualities to images imported from rendering software like 3D Studio Max ([www.discreet.com](http://www.discreet.com)). "You can script the program so the user can pick things up or move them, or do any number of other things," explains Jonathan Sawyer, director of visualization at AEI Digital ([www.aeidigital.com](http://www.aeidigital.com)), a Philadelphia-based architectural rendering and visualization firm that has begun using gaming technology.

When using such tools for architectural presentations, there are different degrees of interactivity that can be applied. "Our products usually contain more of a **menu-driven system**," says Leo, "so the sales team and developer can have some control over what the user sees and explores. They want to be physically present with the potential customer, rather than leave them alone with it."

Highly interactive options are also possible. Maraizon is



Philadelphia-based architectural rendering firm AEI Digital uses video-game style technology for space planning. In an interactive program (above) they developed for Getinge, a manufacturer of surgical-suite equipment, AEI was able to trace accurate ranges of movements for complex medical equipment within varied room sizes.

developing a gaming engine that is specifically geared toward architectural usage. "We are starting to work with programmers to modify video-game engines for the purpose of touring spaces directly," explains Leo.

### FOR DESIGN, TOO

For architects, these programs may have limited use today, but they are becoming more accessible—and perhaps more necessary—as more sophisticated presentations become the norm. Whether the final simulation is interactive or just highly detailed, architectural firms are increasingly turning to outside vendors for 3-D modeling work.

But some visualization professionals active in the A/E/C market are trying to introduce interactive technology into the design process. "We want to take one of these gaming platforms and see how we can use it for site planning or for massing modeling in the design phase," says Michael Schuldt, president of AEI Digital. "The goal is to make **3-D modeling** less passive and more of an active tool."

Already AEI Digital has used interactive technology to assist in **space planning**—and provide a marketing tool at the same time. Last year the company developed an interactive CD-ROM for Getinge, a manufacturer of surgical products such as lighting booms for operating suites. Because of the complex movements of such products within their environment, Getinge needed to be able to show an accurate range of motion and plan for the placement of equipment with healthcare clients. AEI's program allows users to choose room size and shape, products and their placements, and then demonstrate how it would all operate in a real-world setting.

While AEI's Getinge program is not for architects per se, it hints at the possibilities such interactive software programs represent. ■

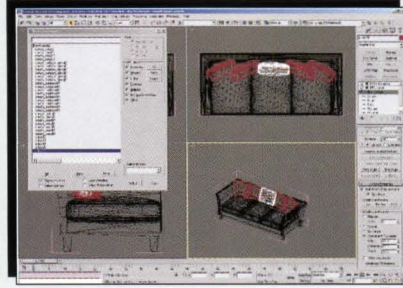


## ➔ Building Better Virtual Reality



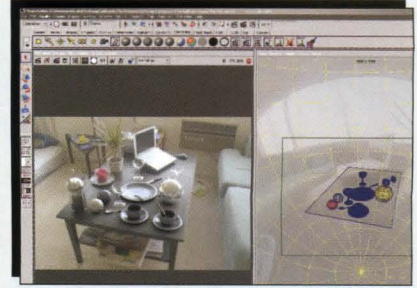
☒ product: **Virtools**  
 ☒ manufacturer: **Virtools**  
 ☒ web: **virtools.com**

Used for video-game production and industry simulations, Virtools applies interactivity to digital 3-D models. Imported from rendering programs like 3D Studio Max, models can be activated in a number of ways: picked up, opened, or "transformed." Virtools allows the files to be placed online; data-management features store project information in the final product.



☒ product: **VIZ 2005**  
 ☒ manufacturer: **Autodesk**  
 ☒ web: **autodesk.com**

An update of the visualizing and presentation engine from the makers of AutoCAD, this application has an array of improved modeling tools and file-format support. It boasts tweaks for easier workflow management and enhanced rendering capabilities. Recent adopters include Pritzker Prize-winner Zaha Hadid, who reportedly likes its intuitive functionality.



☒ product: **Maya 6.0**  
 ☒ manufacturer: **Alias**  
 ☒ web: **alias.com**

The reigning queen of digital modeling and rendering for everything from film to industrial design, Maya is new and improved. Version 6.0 sports upgrades to its interface and workflow-management functions. A built-in web browser, better file-format support, and more compatibility with Adobe Photoshop now make Maya even better at supporting production needs.

**Gensler Seattle**

Photo: Sherman Takata

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(or maybe just specify Grasspave<sup>2</sup> for your project's firelane and parking lot)

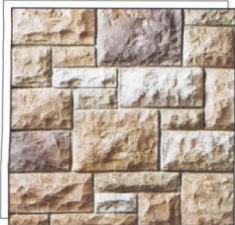
**Grasspave<sup>2</sup>**

The Pentagon RDF Helipads receive some of the world's most important items – And the Pentagon chose Grasspave<sup>2</sup> in the Helipads. The Pentagon will also be installing Gravelpave<sup>2</sup> (not pictured), in 2004, for an access road to deliver some ceremonial artillery.

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- product: **precast stone veneers**
- manufacturer: **Owens Corning, Eldorado Stone**
- web: **culturedstone.com, eldoradostone.com**



Pink slate, anyone? Zebra-striped fieldstones? Believe it or not, these are possible, thanks to what industry insiders call “manufactured stone”—the precast-concrete faux veneers used widely in houses and casinos around the country. Two leading makers are now touting the custom capabilities of their lines: Eldorado Stone and Owens Corning’s Cultured Stone division offer custom colors for such pseudogeologic profiles as “European Castle” and “Oversized Rubble.” The sort of creative control they offer is rather spooky. Go ahead, play Mother Nature: Why not polka-dot schist?

- product: **translucent concrete**
- manufacturer: **LiTraCon**
- web: **litracon.com**

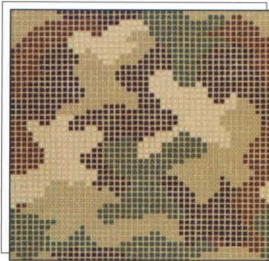
Step aside, naturally translucent stones: Produced in Germany (but invented by Hungarian architect Áron Losonczi), LiTraCon debuts this fall. The concrete blocks have embedded optical fibers—like those used in lighting systems—that allow “no significant loss” of illumination through the material, says the maker. Specify not only the concrete mix but also fiber material and gauge (from 2 micrometers to 2 millimeters), as well as light-transfer pattern—from Cartesian grids to corporate logos.



- product: **paneled cladding**
- manufacturer: **Kepeco+**
- web: **kepcoplus.com**

To mimic stacked masonry construction with historical accuracy, the Nauvoo (Illinois) Temple for the Church of Jesus Christ of Latter-Day Saints was built with stone-clad panels and stainless-steel strongbacks that transferred the dead load all the way to the foundation. Only lateral connections held the façades to the seismically girded structure. A similar system is now being used for the expansion of the Utah State Capitol Building in Salt Lake City.

FOR INFORMATION ON STONE, CIRCLE 121 ON PAGE 81.



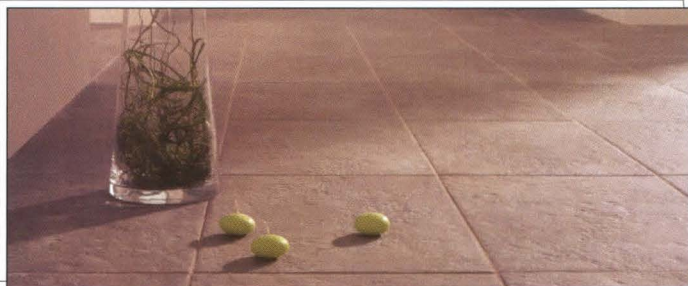
- product: **Opus Romano**
- manufacturer: **Bisazza**
- web: **bisazzausa.com**

The Italian mosaic-tile giant is no longer content to stick to sexy bathtubs and outlandish retail displays. The Milan-based company recently encouraged artists to take its ceramic-look, cube-style Venetian glass 1/2-inch square Opus Romano tiles to furniture. Jürgen Mayer applied them to a gently sloped chair, a love seat, and a stool set that are part of the Bisazza-branded “Soft Mosaics” collection.

- product: **floor tiles**
- manufacturer: **Rickett Quartz**
- web: **rickettquartz.com**

Suitable for retail, commercial, healthcare, and educational settings, Rickett quartz floor tiles come in 1-foot and 2-foot square versions, each 1/10 of an inch thick. Available in a broad color palette and extremely bendable, the tiles are made of 70 percent quartz, which in its raw state is considered by some measures to be harder than diamond. Benefit to the architect: good return on investment and low environmental impact.

- product: **Stone Evolution**
- manufacturer: **Laufen**
- web: **laufen.com**



Typically ceramic tile is pressed, glazed, and then sent to the kiln to be hardened and finished. Laufen’s new Stone Evolution line is pressed, glazed, and pressed again, before being fired. The result: a more stonelike surface, with a better seal and less porosity. Available in two series, Solaris (colors include Pearl, Gold, and Ivory) and Jupiter (in Dusk, Tundra, and Shadow), the tiles come in large and small rectangles (8 by 13-1/2 inches and 13-1/4 by 21-1/4 inches) as well as other sizes, including mosaic and 13-1/4-inch squares.

FOR INFORMATION ON TILE PRODUCTS, CIRCLE 122 ON PAGE 81.

☑ product: **Beyond Multipurpose Enamel**

☑ manufacturer: **Rust-Oleum**  
☑ web: [rustoleum.com](http://rustoleum.com)

Rust-Oleum's Sierra Performance coatings line now includes a no-odor, zero-VOC, zero-HAP (hazardous air pollutant) industrial-grade coating. For use on metal, concrete, masonry, wood, drywall, and tile and applied by brush, roller, or spray gun, "Beyond Multipurpose" is designed for use in confined, occupied spaces such as hospitals and schools. For both interior and exterior applications, the coating can be specified in standard colors and satin or gloss finishes.

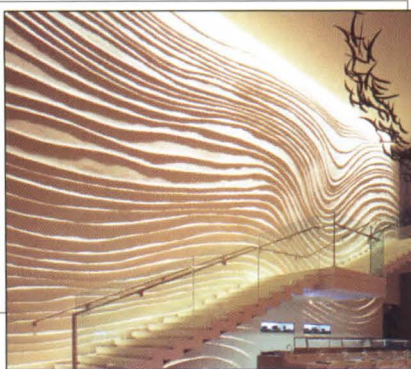
☑ product: **ProXP**  
☑ manufacturer: **Sherwin-Williams**  
☑ web: [sherwin-williams.com](http://sherwin-williams.com)

ProXP is a spray-applied commercial-grade eggshell coating for bare drywall applications that eliminates the need for priming. Using a "micro-structure chemistry," the product is self-priming and offers a subtle stipple finish that minimizes drywall fuzz, evens out joints, conceals imperfections, and masks minor surface irregularities. The durable, scrubbable, and burnish-resistant product is intended for big jobs, such as warehouses, chain stores, shopping centers, factories, and airports.

☑ product: **Series 394 PerimePrime**  
☑ manufacturer: **Tnemec**  
☑ web: [tnemec.com](http://tnemec.com)

To inhibit sources of corrosion such as moisture and contaminants from degrading structural steel components, Tnemec has developed a new primer that is applied under fireproofing. The high-performance coating combines a moisture-cured urethane film with micaceous iron oxide, producing a "platelet barrier." Any moisture that infiltrates the barrier triggers an oxidation process causing zinc pigments to fill voids created by the infiltration. According to the manufacturer, Series 394 is the first primer to receive UL classification (UL 263/ASTM E 119) for use under fireproofing materials.

☑ product: **Surface**  
☑ manufacturer: **Surface Interiors**  
☑ web: [surfaceinteriors.com](http://surfaceinteriors.com)



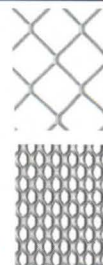
Wall coatings from Surface are offered in five finishes: Gobi (right) has a suede-like appearance; Flint offers a grainy translucent look; Spar resembles frosted parchment; Crush has an icy texture; and Po (above) has a matte, chalklike surface. Raw materials include silica, crystal, and titanium flakes that are combined with high-grade, low-VOC acrylic polymers. Safety ratings are similar to those of flat acrylic interior paint. Application requires coverage of the substrate with Surface's tinted scratch coat followed by two passes of a troweled finish coat.



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**EXHIBITION** *Samuel Mockbee and the Rural Studio: Community Architecture* | National Building

**Museum | Washington, D.C. | Through September 6** The context of the Rural Studio, established by the late architect Samuel Mockbee and his fellow Auburn University professor D.K. Ruth, is commonly considered to be the forsaken roads and plantations of Hale County, Alabama, where the program's mentors and their students began building expressively primal houses and community structures in 1993. But there is another context entirely: Mockbee's mind. And it comes into focus in this show.

Most of the studio's houses appear in photographs and models arrayed around an astonishing shelter (right) made of carpet yarn by students and teachers for the exhibition, as do the produce stand, the baseball field, the park pavilion, and the senior citizens' center.

Of utmost importance, though, are Mockbee's paintings—large, supernatural tableaux exploding with color and finding beauty in distress and salvation. *Alberta's Ascension* describes the otherworldly deliverance of Alberta Bryant, who with her husband, Shepard, moved into the Rural Studio's first house, the 1994 "Hay Bale House" in Mason's Bend, Alabama.

The show's advantage over the many picture-perfect images of the studio's works published in books and magazines is that it elaborates the thought and sweat that went into each project. Photo collages show students, collaborators, and clients on site, animating the "moral sense" Mockbee often mentioned in his lecture notes, which are also on display. He made another, seemingly valedictory, observation in those notes dated October 14, 2001: "Architects have less and less to tell us." Yet if Mockbee's influence holds sway, architects will have more and more to say. **Bradford McKee**



**BOOKS**

***American Synagogues: A Century of Architecture and Jewish Community* | Samuel D. Gruber | Rizzoli; *The American Synagogue: Faith, Spirit, and Identity* | Henry Stolzman and Daniel Stolzman | Images**

For New York City architect Henry Stolzman, the inspiration to write about American synagogues came from his own work designing houses of worship. His thesis, set out with his coauthor and son Daniel, is: How do we conceive buildings that celebrate Jewish tradition, serve the contemporary communal psyche, and announce its future? They cover the history of the building type in the United States and include drawings of typical layouts and photographs of 43 temples across the country, from Peter Harrison's 1763 Touro Synagogue in Newport, Rhode Island, to Minoru Yamasaki's 1974 Temple Beth El (right) in Bloomfield Hills, Michigan, to contemporary examples.

As the Stolzmanns were penning their tome, Samuel Gruber, who is trained as an architectural historian and now teaches Judaic studies at Syracuse University, was working on a similar volume. While Gruber,



too, gives a historical overview—and features many of the same buildings found in the Stolzmanns' survey—his book puts more emphasis on the rise of the modernist synagogue. Together with architectural photographer Paul Rocheleau, Gruber documents 36 temples, including Philip Johnson's 1956 Congregation Kneses Tifereth Israel in Port Chester, New York, with its clean white interior featuring bands of colored glass and a seemingly weightless ceiling draped overhead.

The concordance of these two books suggests that we may be hearing more on this topic soon. **Bay Brown**

## EXHIBITIONS

## AMSTERDAM

**Dig the City**

Photos of unplanned developments on the fringes of the ordered city of Amsterdam.

ARCAM

www.arcam.nl  
July 3–September 4

## CHICAGO

**Big & Green**

A survey of cutting-edge sustainable architecture, organized by the National Building Museum.

CHICAGO ARCHITECTURE FOUNDATION  
www.architecture.org  
Through September 12

## CHICAGO

**Signature Photos**

Hedrich Blessing's private archive of building photos, signed by their architects.

CHICAGO CULTURAL CENTER  
www.chicagoculturalcenter.org  
Through August 29

## CHICAGO

**Unbuilt Chicago**

Drawings and models of unbuilt projects for Chicago—from the 1870s to the present.

THE ART INSTITUTE OF CHICAGO  
www.artic.com  
Through January 16, 2005

## DESSAU, GERMANY

**Female Avant-Gardists**

Archival material documenting the contributions of women to 1920s avant-garde architecture. KANDINSKY/KLEE MASTERS' HOUSES  
www.meisterhaeuser.de  
July 2–August 29

## LOS ANGELES

**Ronan and Erwan Bouroullec**

An installation of furniture, products, and interiors from the French designers.

MUSEUM OF CONTEMPORARY ART  
www.moca-la.org  
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## LOS ANGELES

**William P. Bruder**

A survey of work by the Phoenix-based architect, including the Nevada Museum of Art.

ARCHITECTURE AND DESIGN MUSEUM  
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## MIAMI

**Margaret Bourke-White**

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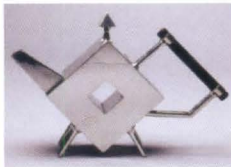
THE WOLFSONIAN-FIU  
www.wolfsonian.fiu.edu  
Through October 10

## NEW YORK CITY

**Christopher Dresser**

Retrospective of the nineteenth-century Scottish industrial designer.

COOPER-HEWITT, NATIONAL DESIGN MUSEUM  
www.cooperhewitt.org  
Through July 29



## NEW YORK CITY

**Tall Buildings**

An international survey of towers, designed over the last decade, that are redefining the twenty-first-century skyline.

MOMA QNS  
www.moma.org  
July 16–September 27

## NEW YORK CITY

**Christo and Jeanne-Claude**

Documentation of the artists' plan to cover parts of Central Park in fabric.

METROPOLITAN MUSEUM OF ART  
www.arch.columbia.edu  
Through July 25

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Sizable images of Cuba's capital by architectural photographer Robert Polidori.

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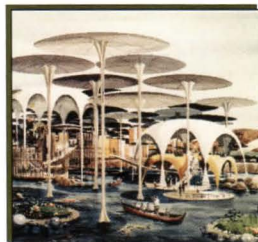
SAN FRANCISCO MUSEUM OF MODERN ART  
www.sfmoma.org  
Through August 7

## SANTA BARBARA, CALIFORNIA

**Wonderlands**

Recreational urban plans by Whitney R. Smith and Wayne R. Williams.

UNIVERSITY ART MUSEUM, U.C. SANTA BARBARA  
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Through August 28

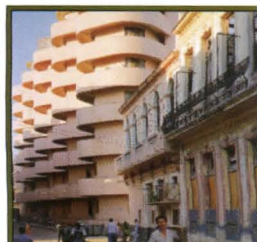


## VANCOUVER, CANADA

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VANCOUVER ART GALLERY  
www.vanartgallery.bc.ca  
Through September 26



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WESTIN CHICAGO RIVER NORTH  
www.architecturemag.com  
September 28

## DALLAS

**Building Better Schools**

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WESTIN PARK CENTRAL HOTEL  
www.architecturemag.com  
September 9

## MILWAUKEE

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PFISTER HOTEL  
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October 14–16

## TORONTO

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Annual awards program for best-designed Web sites of architectural firms and students, sponsored by Entablature.

www.entablature.com  
Deadline August 6

**P/A Awards**

Architecture's annual program for unbuilt projects (see page 72).

www.architecturemag.com  
Deadline August 27

**Living Smart**

Competition sponsored by the city of Portland, Oregon, to design affordable single-family detached housing on narrow lots.

www.livingsmartpdx.com  
Deadline August 31

**Institute Honor Awards for Regional and Urban Design**

Annual awards program sponsored by the American Institute of Architects.

www.aia.org  
Deadline September 10

# The fifty-second annual P/A Awards

## HONORING OUTSTANDING UNBUILT WORK

The P/A (Progressive Architecture) Awards recognize unbuilt projects demonstrating overall design excellence and innovation. All entries must be commissioned by paying clients for execution. Judging will take place in September 2004. Winning entries will be notified in October 2004 and published in the January 2005 issue of *Architecture*. **NEW THIS YEAR:** The Applied Research category returns. See item No. 4 in the entry rules.

## jury

Maurice Cox — RBGC Architecture, Research & Urbanism — Charlottesville

Teddy Cruz — Estudio Teddy Cruz — San Diego

Roger Duffy — Skidmore, Owings & Merrill — New York City

Maxine Griffith — Philadelphia City Planning Commission — Philadelphia

Brian Healy — Brian Healy Architects — Boston

## submission deadline: August 27, 2004

**1 WHO CAN ENTER** Architects and other design professionals practicing in the U.S., Canada, or Mexico may enter one or more submissions. Proposals may be for any location, but work must have been directed—and substantially executed—in offices in those three countries.

**2 REAL PROJECTS ONLY** All entries must have been commissioned for compensation by clients with the intention and the authority to carry out the submitted proposal. A project entered in a design competition is eligible if it is the one proposal the competition's sponsor intends to build.

**3 ARCHITECTURAL AND URBAN DESIGN ENTRIES** Architectural design entries may only include works of architecture scheduled to be completed after January 1, 2005. Urban design entries must have been accepted by a client who intends to base future development on them; please include implementation timeline.

**4 RESEARCH ENTRIES** Applied research projects and prototypes will be accepted this year as a separate category (see entry form). Entries may only include reports accepted by the client for implementation or studies undertaken by the entrant with intention to market and/or publish results. Explain basis of eligibility on Project Facts Page (see No. 10).

**5 VERIFICATION OF CLIENT** Awards and citations are contingent upon *Architecture*'s verification that selected projects meet all eligibility requirements, including *Architecture*'s direct contact with clients. *Architecture* reserves final decision on eligibility and accepts no liability in that

**6 PROVIDING ADDITIONAL MATERIALS** Entrants whose submissions are selected for awards or citations agree to make available further information and publication-quality graphic materials as needed by *Architecture*.

**7 PUBLICATION** Winners of P/A design awards or citations grant *Architecture* first publication rights for their winning projects while under construction or when complete or substantially complete (at *Architecture*'s discretion). Publication may not coincide with building completion, but *Architecture* retains first publication rights to the project for up to one year.

**8 AWARD** P/A design award and citation winners will be announced first at a celebration in New York City in January 2005. Winning projects will be exhibited at that event. Winners will submit a summary presentation for exhibition purposes.

**9 BINDERS** Entries must consist of legibly reproduced graphic material accompanied by adequate explanatory text in English. All entry material must be firmly bound in binders no larger than 17 inches in one dimension only, to a maximum of 11 by 17 inches (9 by 12 inches preferred). Avoid fragile or sharp binders. Videocassettes, CD-ROMs, models, and any unbound material will not be considered.

**10 PROJECT FACTS PAGE** The first page of each entry binder must list project facts under the following headings: Location, Site Characteristics, Zoning Constraints, Type of Client, Program, Construction Systems, Funding, and Schedule. This information must include

**11 PROCESS DOCUMENTATION** Entries should document the design process, as well as its result. Include information on software, hardware, and hand media employed. *Architecture* encourages entrants to include copies of preliminary sketches, alternative preliminary schemes, information on context, precedents for the design, and excerpts from working drawings.

**12 PROJECT RESEARCH** Include records of any research performed in support of an architecture or urban design project.

**13 NO ORIGINAL DRAWINGS** Please do not send original drawings; *Architecture* accepts no liability for submittals.

**14 ANONYMITY** To maintain anonymity in judging, no names of entrants or collaborating parties may appear on any submission materials except the entry forms. Do not, however, conceal the identity or location of projects.

**15 ENTRY FORMS** Each submission must be accompanied by a signed, completed entry form. (Reproductions are acceptable.) Submit the form in an unsealed envelope attached to the submission binder's back cover.

**16 PHOTOCOPY** Please enclose one bound set of 8-1/2-by-11-inch photocopies of your entry. The first two pages should be copies of the entry form and the project facts page, in that order. Secure the photocopies inside the back cover of the binder.

**17 ENTRY CATEGORIES** Identify each submission on its entry form by name (see entry form). Mixed and

facilities should be classified by the largest function. There is no "miscellaneous" category.

**18 ENTRY FEES** An entry fee must accompany each submission. The fee is \$125 for *Architecture* subscribers; nonsubscribers can submit an entry for \$160, which includes a one-year subscription to *Architecture*. Each entry after the initial entry is \$100. Make check or money order payable to *Architecture*. Canadian and Mexican entrants must send drafts in U.S. dollars. Fee must be inserted in an unsealed envelope with the entry form (see No. 15).

**19 RETURN OF ENTRIES** *Architecture* will return only those entries accompanied by a self-addressed, stamped envelope. *Architecture* assumes no liability for loss or damage.

**20 ENTRY DEADLINE** Deadline for sending entries is August 27, 2004. All entries must show carrier postmarks of August 27, 2004, or earlier. Hand-delivered entries must arrive by 5 p.m. EST on August 28.

ADDRESS ENTRIES TO:  
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*Architecture*  
770 Broadway  
New York, N.Y. 10003

Please complete and submit all entry materials intact with each entry (see No. 15 for instructions). Photocopies of this form may be used.

# The fifty-second annual P/A Awards

## deadline: August 27, 2004

  
 Entrant

  
 Contact Name

  
 Address

  
 Phone Number

  
 Fax Number

  
 E-mail Address

  
 Project Name

  
 Project Location

  
 Client

  
 Client Phone Number

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| <input type="checkbox"/> <b>CU</b> CULTURAL            | <input type="checkbox"/> <b>ID</b> INDUSTRIAL          |
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| <input type="checkbox"/> <b>GV</b> GOVERNMENTAL        | <input type="checkbox"/> <b>RL</b> RELIGIOUS           |
| <input type="checkbox"/> <b>HM</b> MULTIFAMILY HOUSING | <input type="checkbox"/> <b>UD</b> URBAN DESIGN        |

I certify that the parties credited executed the submitted project and that it meets all eligibility requirements (Nos. 1-6), and that I am authorized to represent those credited. I understand that ARCHITECTURE may disqualify any entry that fails to meet submission requirements (Nos. 9-20). If this entry wins an award or citation in the 52nd Annual P/A Awards, I grant ARCHITECTURE sole first publication rights to the project when under construction or fully complete, the choice of which is at ARCHITECTURE's sole discretion.

  
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 Name

  
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limited criteria. Credential-based selection is far fairer and does generally leave room for the young and inexperienced (but talented). Curiously, when I approached the AIA through its national headquarters for guidance to organizations considering competitions, the best that they could come up with was their useless discussion paper from the early 1980s. Where are they when we need them?

**Cal Bowie**

*Washington, D.C.*

### Very angry young man

The article on the Ford plant [May 2004, page 51] makes me angry. Many architects know how companies hype their ecofriendliness without fundamentally changing their businesses. Why didn't the story address how the architects approach the process of manufacturing, programming, and the betterment of the environment from an ecological standpoint? It would be much more interesting to read about William McDonough's ideas and research (not) impacting Ford corporate management. The pictures of primitive, polluting vehicles in environments not architecturally influenced by any advanced sustainable concepts of manufacturing are depressing. Albert Kahn's designs had much more daylighting.

**Claude Armstrong**

*Gainesville, Florida*

### No vertigo in San Antonio

As Vincent James and Jennifer Yoos suggest in "The 3-D City" [May 2004, page 33], it is once again time for architects and urban designers to explore the physical, aesthetic, and business potential of the air rights above our cityscapes. This may be a stretch, but as Calgary and Minneapolis face the challenge of interiorization due to their skyways, San Antonio's much-touted Riverwalk also sucks the life out of the surrounding streets. A dynamic 3-D urban environment might keep more people in the city rather than pushing them to the ever-expanding suburbs.

**Henry Chao**

*Columbus, Ohio*

### CORRECTIONS

The article on Miami's "Housing Diaspora" project (April 2004, page 45) incorrectly stated that the scheme won a 2001 design competition; it actually received an honorable mention. The winners of the competition were Ruben Santos and Ramon I. Santos of Arlington, Virginia. In "Admitting Modernism" (June 2004), the caption on page 38 wrongly identified a drawing of the Daily News Building as Rockefeller Center.

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# WHEN THE HOMELESS BUILD MAKESHIFT SHELTERS THEY ENDANGER THEMSELVES AND THE PUBLIC AT LARGE. WHY AREN'T ARCHITECTS DOING MORE TO HELP?

BY THOMAS FISHER

On Tuesday, February 10, 2004, a 37-year-old man named Robin Sam burned to death in his makeshift camp in the snow, across the street from the Salvation Army Thrift Store in Minneapolis, Minnesota. He lived within sight of downtown's glass-clad skyscrapers, near a highway billboard advertising high-speed Internet service. The firefighters who extinguished the blaze that killed him believe that the fire was most likely started by the small heater Sam used to keep warm.

There are millions of Robin Sams in the world, millions of people who live on the margins of society, invisible to those of us caught in the production and consumption of goods and services. The lives they lead speak to failures at all levels: the failure of governments to meet even the most fundamental needs of their citizens, the failure of the market to spread even a tiny fraction of the enormous wealth it creates to those who have nothing, and a failure of communities to care for those who live in our midst.

The Sams of the world also represent a failure of the design professions charged with providing for the basic needs of people. Design has become a force for encouraging people to consume, to buy the newest technology, to desire the newest style clothing, and to yearn for a newer house or office. Meanwhile, as we focus almost all our attention on the creation of desire, we mostly ignore the real

needs of vast numbers of people for the simplest of things: shelter, security and safety, adequate food and clothing, and the materials needed to live, work, and learn.

As a result, Americans have designed for themselves an unsustainable way of life, a life depicted on television and beamed around the world that, if followed by even half of the earth's population, would devastate the global environment. At the same time, we have designed a radically unjust environment, with fewer and fewer people controlling more and more of the world's wealth and resources, as the poor, taunted by televised images of modern, middle-class life, become ever more desperate to survive.

Many designers know this, and some may even wish that they could do something about it. Some have: the late Samuel Mockbee, whose Rural Studio continues to operate in Alabama's Hale County, one of the nation's poorest; Cameron Sinclair, whose Architecture for Humanity has addressed the needs of AIDS victims in Africa (January 2003, page 49) and transitional housing for the homeless; Shigeru Ban of Japan, who has led an international effort to design emergency shelter for those displaced by earthquakes; Rosanne Haggerty, a

developer of single-room-occupancy housing worldwide (April 2004, page 30); and Jae Cha, who has designed community centers and churches for faith-based organizations doing missionary and relief work in Central and South America (April 2004, page 27).

They have each taken different paths—starting a nonprofit, teaching at a university, working pro-bono, or charging only to cover costs. But their example shows how the traditional structure of the architectural profession often precludes us from meeting our responsibility to help those most in need of our services. Few clients pay us to do this work and government funding doesn't come close to covering the costs. But as organizations such as Legal Aid and Doctors Without Borders have shown in other fields, when professions take their public missions seriously, public and private support follows. For example, what if we set up "architectural aid" clinics as regional partnerships

between AIA chapters and architecture schools, and then required that everyone entering the profession work in one during school or right after graduation as part of the Internship Development Program, getting good experience while doing something good?

Until we take our professional responsibility seriously and act in a concerted way to address the problem of homelessness, the disadvantaged will continue to take it upon themselves to gather what they need, as Robin Sam did. It is not they, the poor, who are bankrupt, but all of us, who see a need, have the capacity to do something about it, and then look the other way. ■



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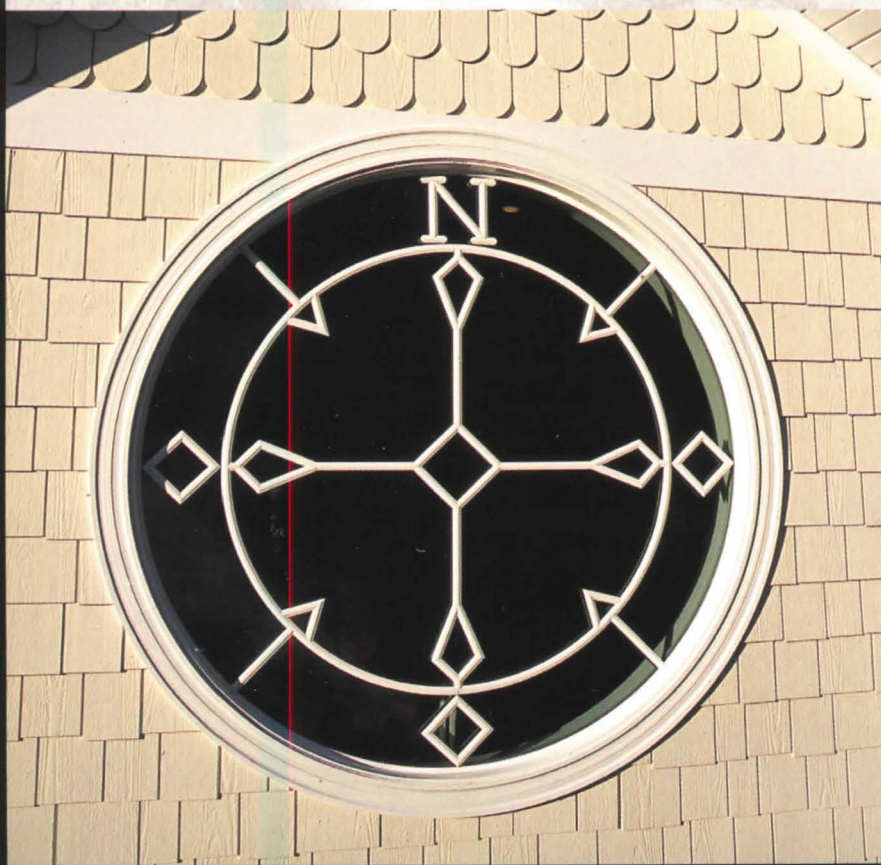


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